

METAL ROUND PIPE CULVERT																	
FILL HEIGHT AND METAL THICKNESS TABLE																	
HELICAL LOCKSEAM AND WELDED SEAM PIPE CULVERT																	
PIPE SIZE	MINIMUM COVER	STEEL															
		2 ⅔"x ½" CORRUGATIONS					3"x 1" CORRUGATIONS					5"x 1" CORRUGATIONS					
		METAL THICKNESS IN INCH/GAGE															
	DIAMETER INCHES	INCHES	0.064/16	0.079/14	0.109/12	0.138/10	0.168/8	0.064/16	0.079/14	0.109/12	0.138/10	0.168/8	0.064/16	0.079/14	0.109/12	0.138/10	0.168/8
MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE IN FEET																	
12	12	100	100														
15	12	100	100														
18	12	100	100	100													
24	12	100	100	100													
30	12	85	100	100													
36	12	71	88	100	100		81	100	100								
42	12	60	76	100	100	100	69	87	100								
48	12	53	66	93	100	100	61	76	100				54	68	95		
54	18		59	82	100	100	54	67	95	100	100	48	60	84	100	100	
60	18			74	95	100	48	61	85	100	100	43	54	76	98	100	
66	18				87	100	44	55	78	100	100	39	49	69	89	100	
72	18				79	97	40	50	71	92	100	36	45	63	81	100	
78	18					86	37	47	66	85	100	33	41	58	75	92	
84	18					75	34	43	61	78	96	31	38	54	70	85	
90	18						32	40	57	73	90	29	36	50	65	80	
96	18							38	53	69	84		34	47	61	75	
102	18							35	50	65	79		32	44	57	70	
108	18								47	61	75			42	54	66	
114	18								45	58	71			40	51	63	
120	18								42	55	67			38	49	60	
126	18									52	64				46	57	
132	18									50	61				44	50	
138	18									48	58				42	50	
144	18										56						50

NOTES :

1. When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
2. Fill heights exceeding 100 feet require special analysis by the Government.
3. The fill heights in the table are for helical lockseam and welded seam pipe only. Fill heights for culvert pipe with annular corrugations are more restrictive than those of helical lockseam and welded seam pipe. Obtain approval before furnishing annular corrugated pipe.
4. Measure minimum cover from the top of the pipe culvert to the subgrade for flexible pavements, and to the top of the pavement for rigid pavements. Measure maximum fill height from the top of the pipe to the top of the pavement for both flexible and rigid pavement.

METAL PIPE CULVERT

STANDARD  
602-1

BY	DATE	REVISION DESCRIPTION

DESIGN	DJL	PROJ. NO.	5943
DRAWN	DJL	DATE	3/2017
CHECKED	CA	SURVEYED	DJ&A

D&A, P.C.

CONSULTING ENGINEERS & LAND SURVEYORS

3203 Russell Street, Missoula, Montana 59801-8591

Phone 406/721-4320 Fax 406/648-8371

MT FISH, WILDLIFE & PARKS

MILLTOWN STATE PARK

CULVERT DETAILS

SHEET	
63	77

METAL PIPE ARCH CULVERT															
FILL HEIGHT AND METAL THICKNESS TABLE															
HELICAL LOCKSEAM AND WELDED SEAM PIPE ARCH CULVERT															
PIPE ARCH SIZE	CORNER RADIUS	MINIMUM COVER	STEEL												
			2- <sup>2</sup> / <sub>3</sub> "x <sup>1</sup> / <sub>2</sub> " CORRUGATIONS				3"x 1" CORRUGATIONS				5"x 1" CORRUGATIONS				
			METAL THICKNESS IN INCH/GAGE												
			0.064/16	0.079/14	0.109/12	0.138/10	0.168/8	0.079/14	0.109/12	0.138/10	0.168/8	0.079/14	0.109/12	0.138/10	0.168/8
SPAN X RISE INCHES	INCHES	INCHES	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE IN FEET												
17 x 13	3- <sup>1</sup> / <sub>2</sub>	12	13												
21 x 15	4- <sup>1</sup> / <sub>8</sub>	12	12												
24 x 18	4- <sup>7</sup> / <sub>8</sub>	12	13												
28 x 20	5- <sup>1</sup> / <sub>2</sub>	12	13												
35 x 24	6- <sup>7</sup> / <sub>8</sub>	12	12												
42 x 29	8- <sup>1</sup> / <sub>4</sub>	12	12												
49 x 33	9- <sup>5</sup> / <sub>8</sub>	12		12											
57 x 38	11	12			12										
64 x 43	12- <sup>3</sup> / <sub>8</sub>	12			12										
71 x 47	13- <sup>3</sup> / <sub>4</sub>	12				12									
77 x 52	15- <sup>1</sup> / <sub>8</sub>	12					12								
83 x 57	16- <sup>1</sup> / <sub>2</sub>	12					12								
---															
---															
60 x 46	18- <sup>3</sup> / <sub>4</sub>	12						21					21		
66 x 51	20- <sup>3</sup> / <sub>4</sub>	12						21					21		
73 x 55	22- <sup>7</sup> / <sub>8</sub>	12						20					20		
81 x 59	20- <sup>7</sup> / <sub>8</sub>	12						17	--				17	--	
87 x 63	22- <sup>5</sup> / <sub>8</sub>	12						17	--				17	--	
95 x 67	24- <sup>3</sup> / <sub>8</sub>	12						17	--				17	--	
103 x 71	26- <sup>1</sup> / <sub>8</sub>	18						17					17	--	
112 x 75	27- <sup>3</sup> / <sub>4</sub>	18						16					16		
117 x 79	29- <sup>1</sup> / <sub>2</sub>	18						16					16		
128 x 83	31- <sup>1</sup> / <sub>4</sub>	24								16				16	
137 x 87	33	24								16				16	
142 x 91	34- <sup>3</sup> / <sub>4</sub>	24								16					16

NOTES :

1. When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
2. Fill heights exceeding 100 feet require special analysis by the Government.
3. The fill heights in the table are for helical lockseam and welded seam pipe only. Fill heights for culvert pipe with annular corrugations are more restrictive than those of helical lockseam and welded seam pipe. Obtain approval before furnishing annular corrugated pipe.
4. Measure minimum cover from the top of the pipe culvert to the subgrade for flexible pavements, and to the top of the pavement for rigid pavements. Measure maximum fill height from the top of the pipe to the top of the pavement for both flexible and rigid pavement.

METAL PIPE CULVERT

STANDARD  
602-1

BY	DATE	REVISION DESCRIPTION

DESIGN	DJL	PROJ. NO.	5943
DRAWN	DJL	DATE	3/2017
CHECKED	CA	SURVEYED	DJ&A

DJ&A, P.C.

CONSULTING ENGINEERS & LAND SURVEYORS

3203 Russell Street, Missoula, Montana 59801-8591

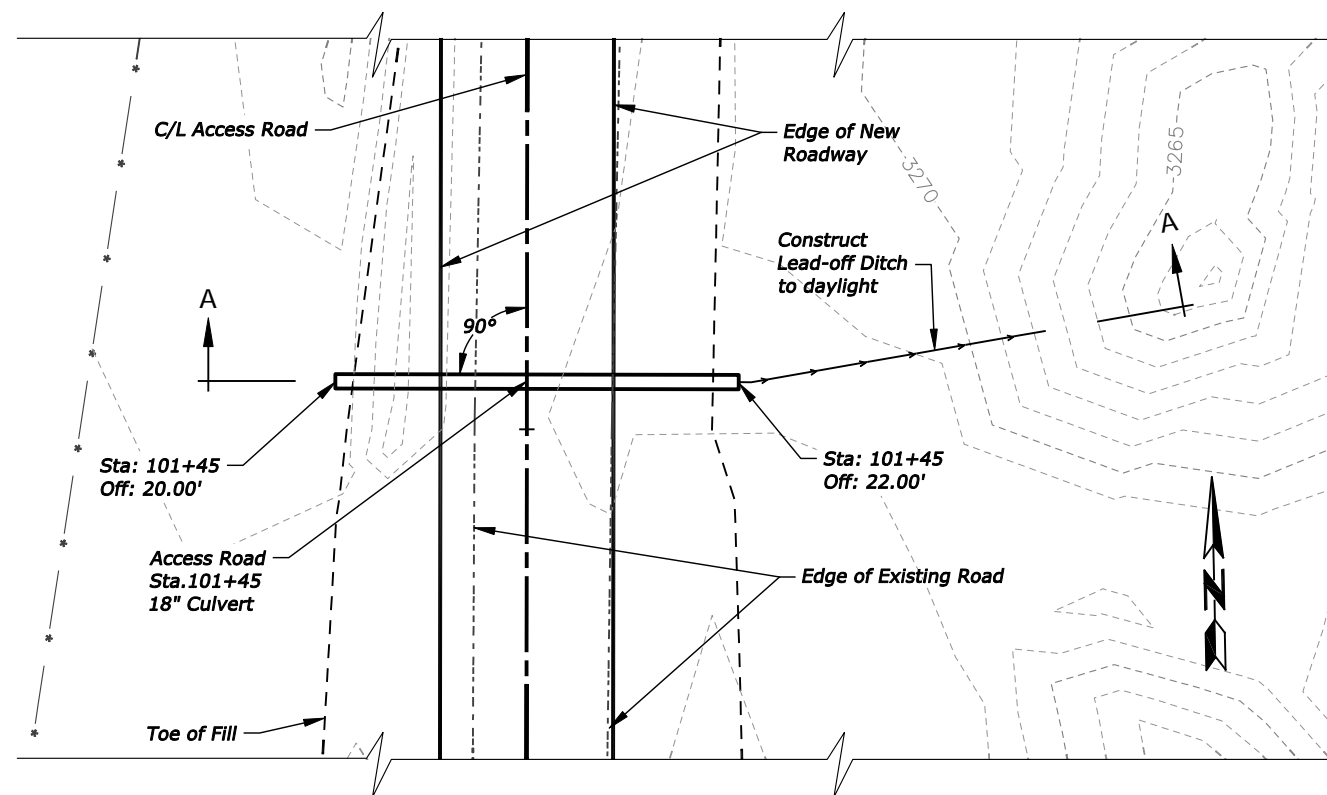
Phone 406/721-4320 Fax 406/648-8371

MT FISH, WILDLIFE & PARKS

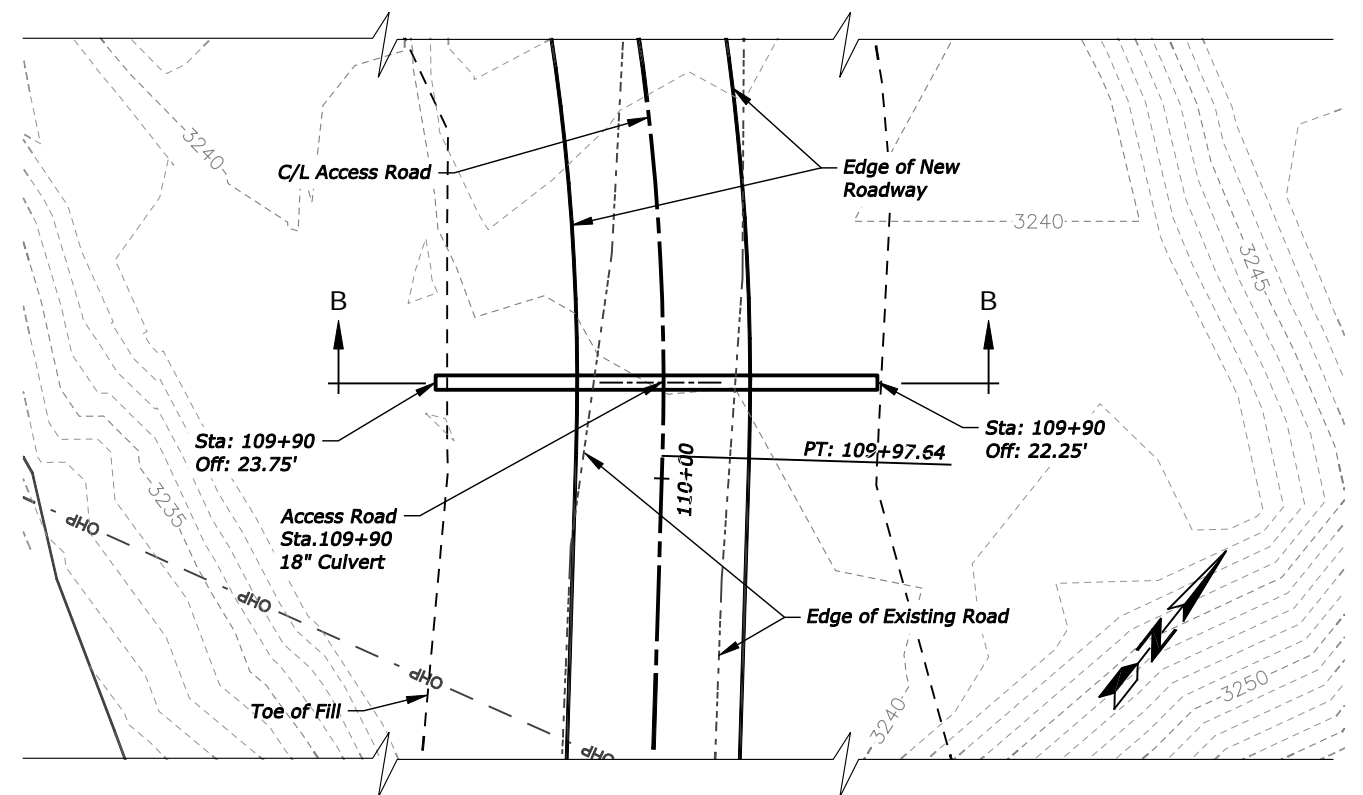
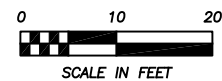
MILLTOWN STATE PARK

CULVERT DETAILS

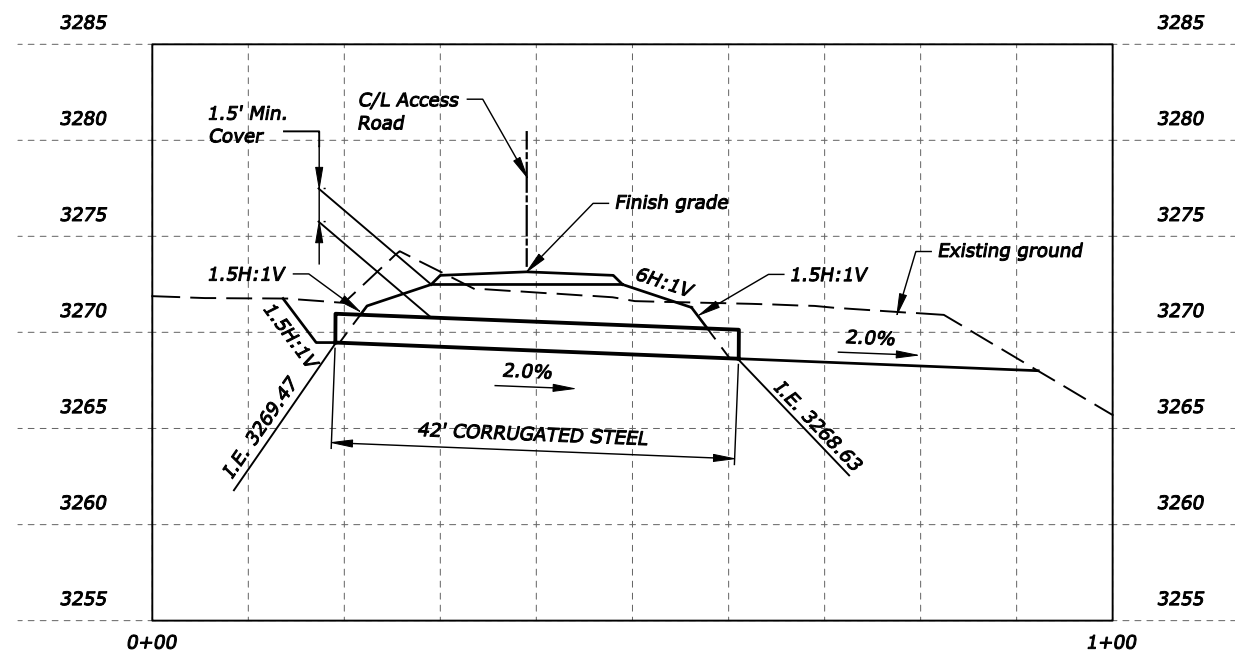
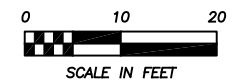
SHEET	
64	77



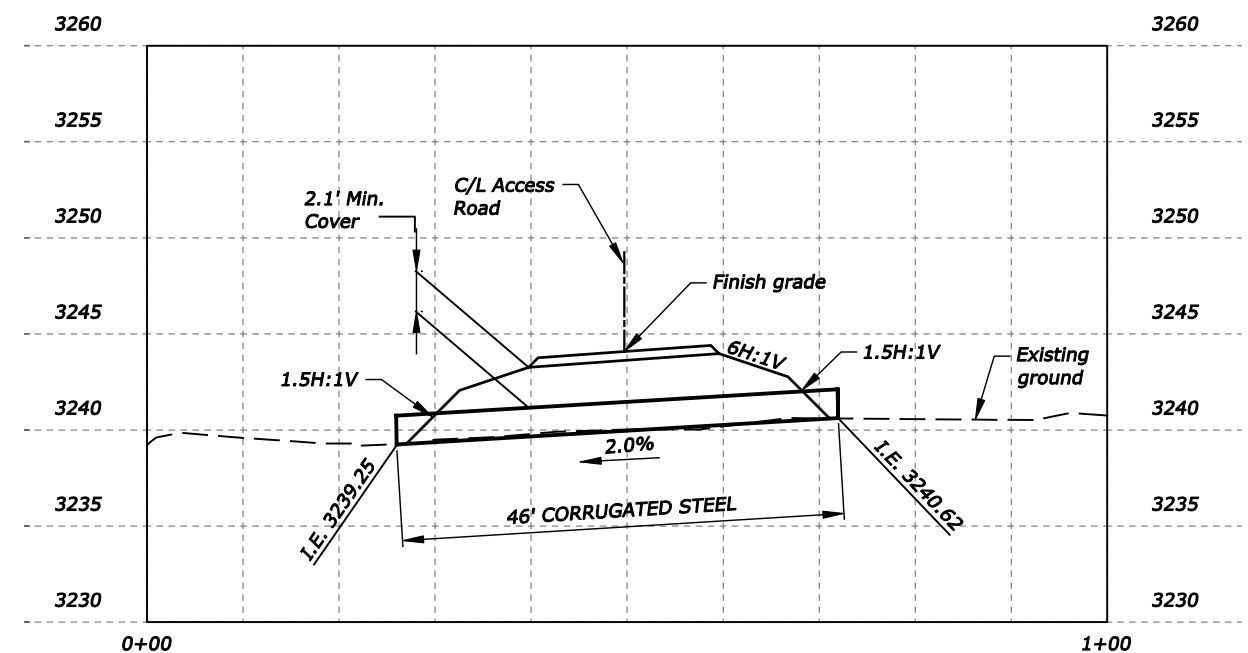
PLAN - STA. 101+45 CULVERT



PLAN - STA. 109+90 CULVERT

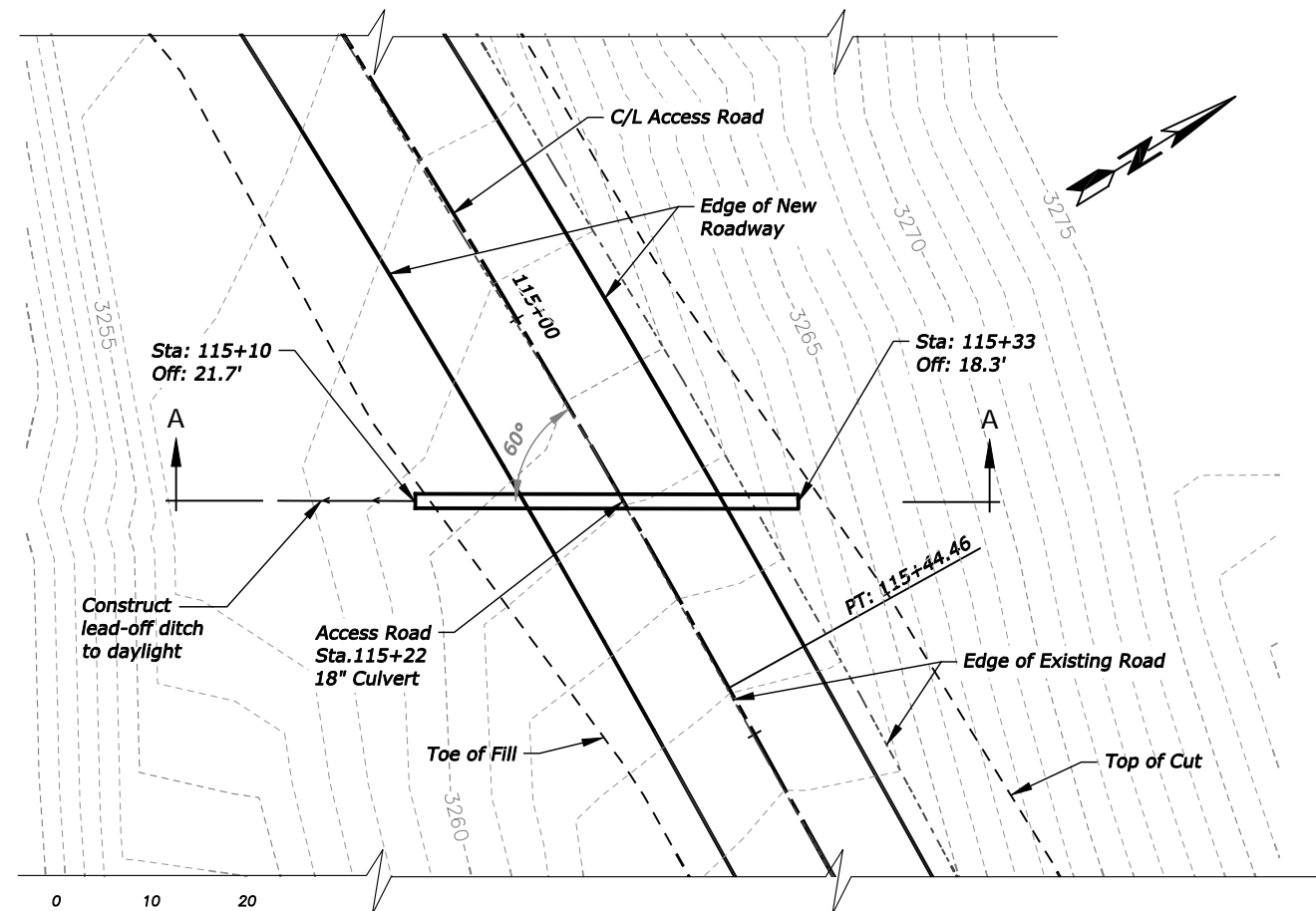


SECTION A-A

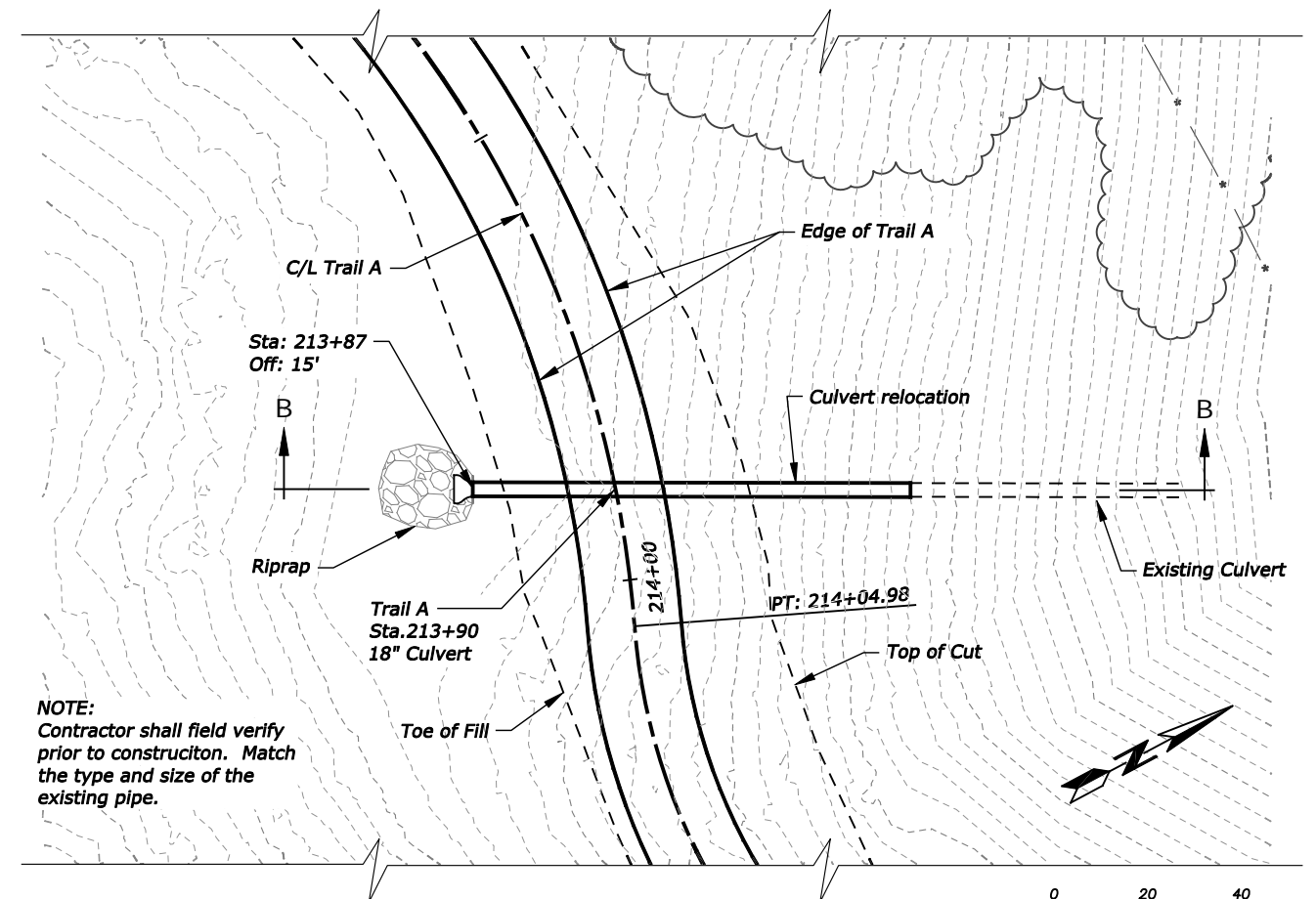


SECTION B-B

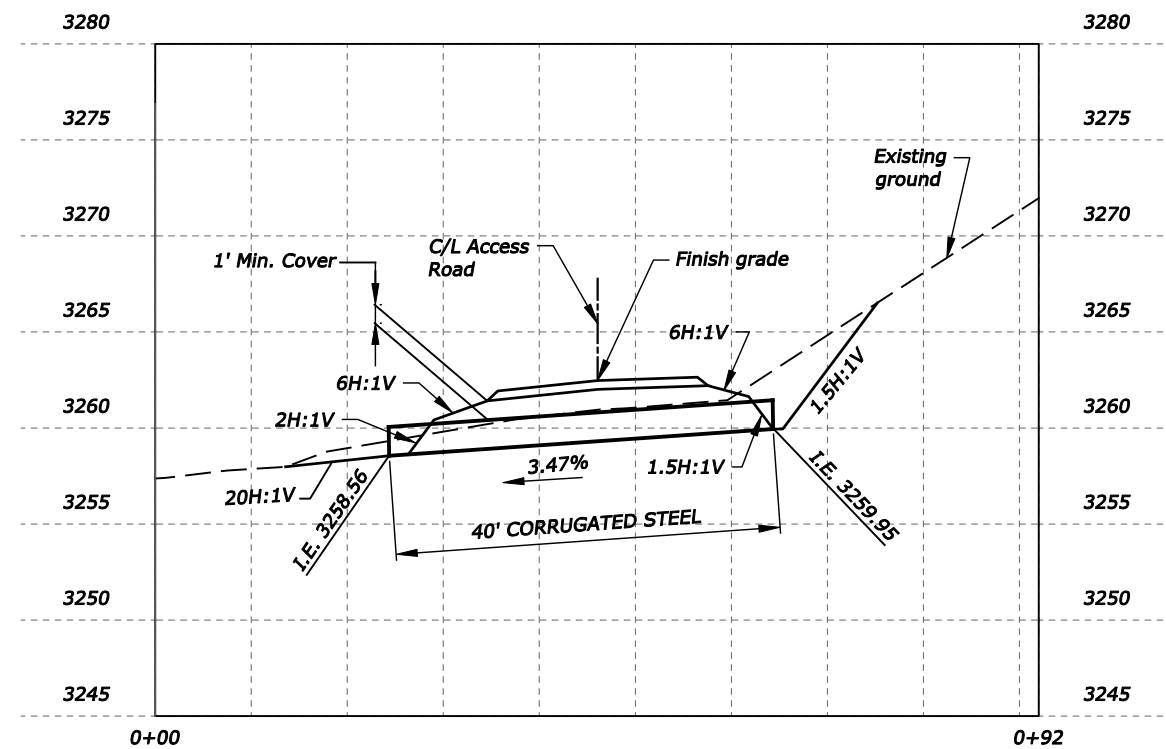
BY	DATE	REVISION DESCRIPTION	DESIGN <u>DJL</u> PROJ. NO. <u>5943</u>	 <b>D&amp;A, P.C.</b> CONSULTING ENGINEERS & LAND SURVEYORS 3203 Russell Street, Missoula, Montana 59801-8591 Phone 406/721-4320 Fax 406/648-8371	 MT FISH, WILDLIFE & PARKS  MILLTOWN STATE PARK	CULVERT DETAILS	SHEET	
			DRAWN <u>DJL</u> DATE <u>3/2017</u>				OF	
			CHECKED <u>CA</u> SURVEYED <u>DJ&amp;A</u>				65	77



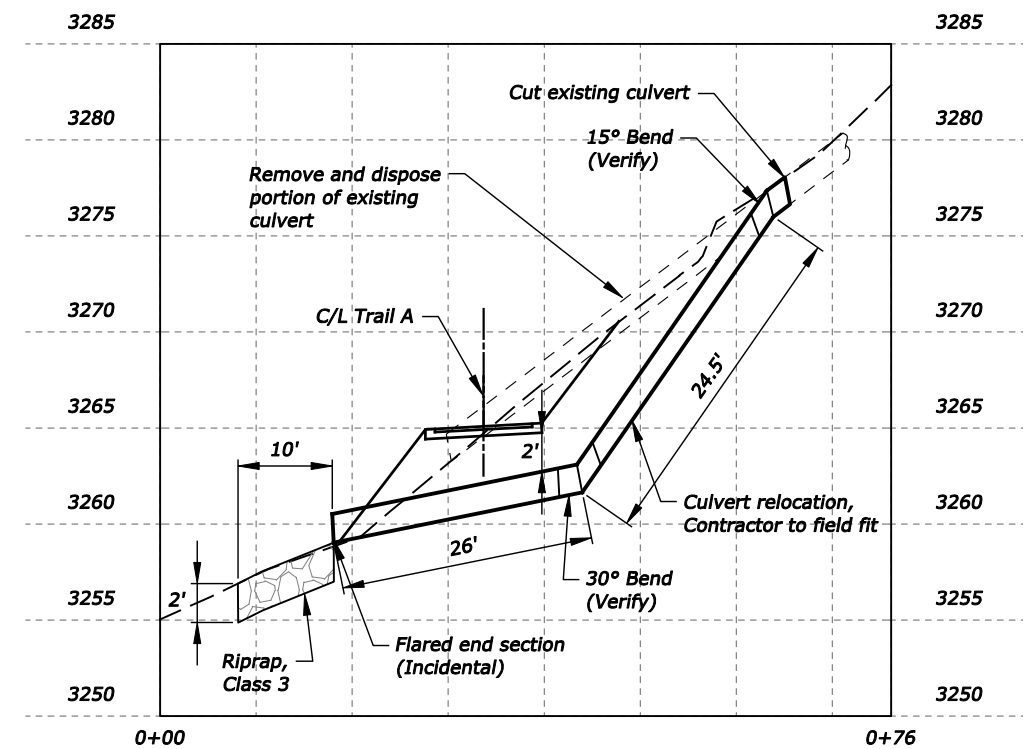
PLAN - STA. 115+22 CULVERT



PLAN - STA. 213+90 CULVERT

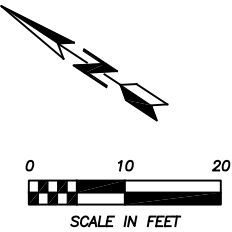
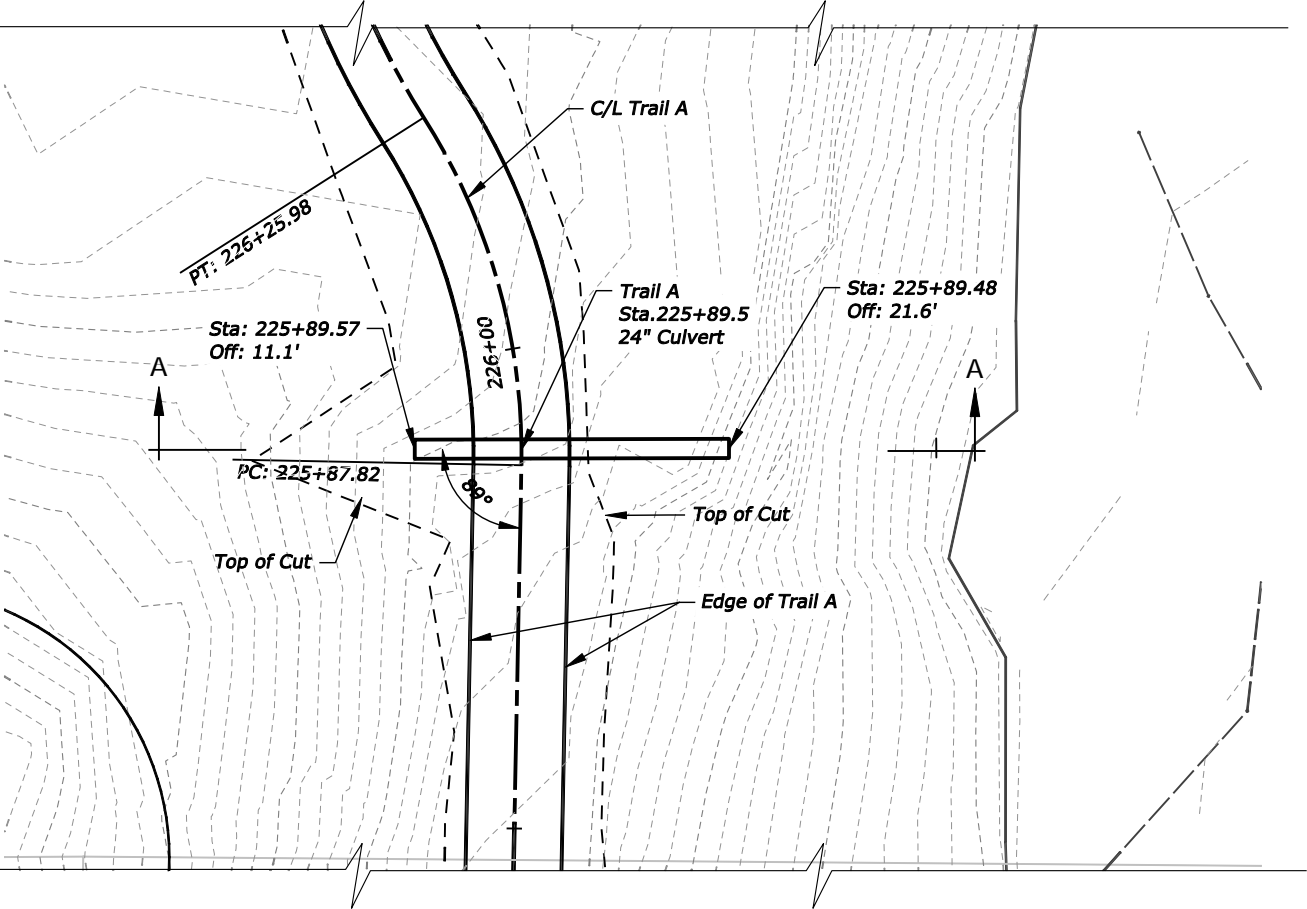


SECTION A-A

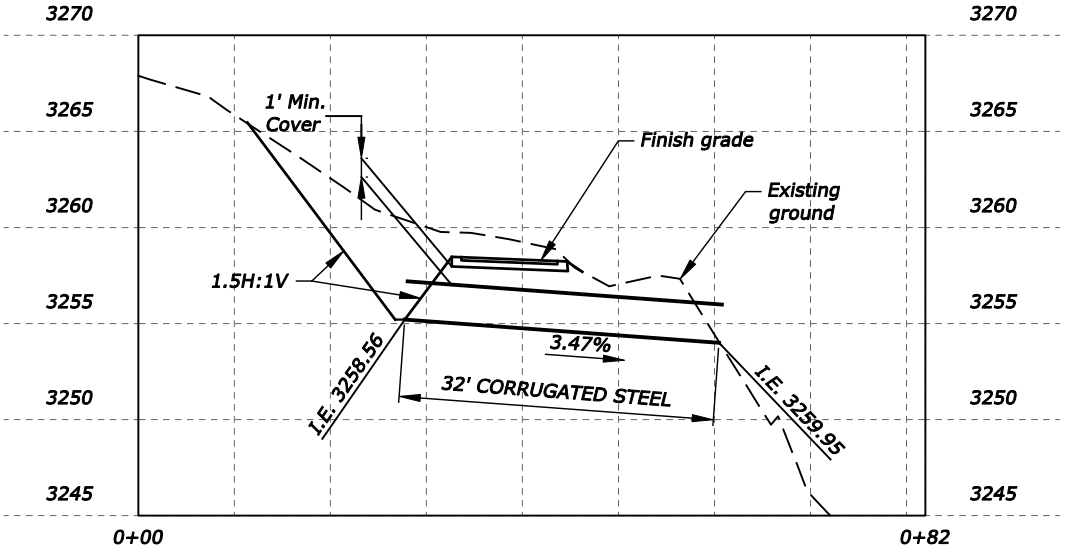


SECTION B-B

BY	DATE	REVISION DESCRIPTION	DESIGN	DJL	PROJ. NO.	5943	 CONSULTING ENGINEERS & LAND SURVEYORS 3203 Russell Street, Missoula, Montana 59801-8591 Phone 406/721-4320 Fax 406/648-8371	MT FISH, WILDLIFE & PARKS		CULVERT DETAILS		SHEET	
			DRAWN	DJL	DATE	3/2017		MILLTOWN STATE PARK				66	77
			CHECKED	CA	SURVEYED	DJL&A							



PLAN - STA. 225+89.5 CULVERT



SECTION A-A

BY	DATE	REVISION DESCRIPTION

DESIGN	DJL	PROJ. NO.	5943
DRAWN	DJL	DATE	3/2017
CHECKED	CA	SURVEYED	DJA



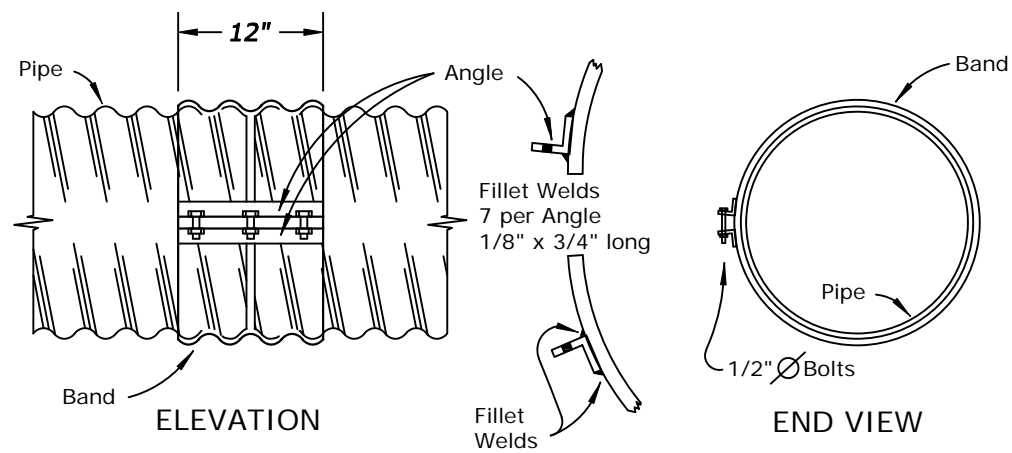
**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Russell Street, Missoula, Montana 59801-8591  
Phone 406/721-4320 Fax 406/648-8371



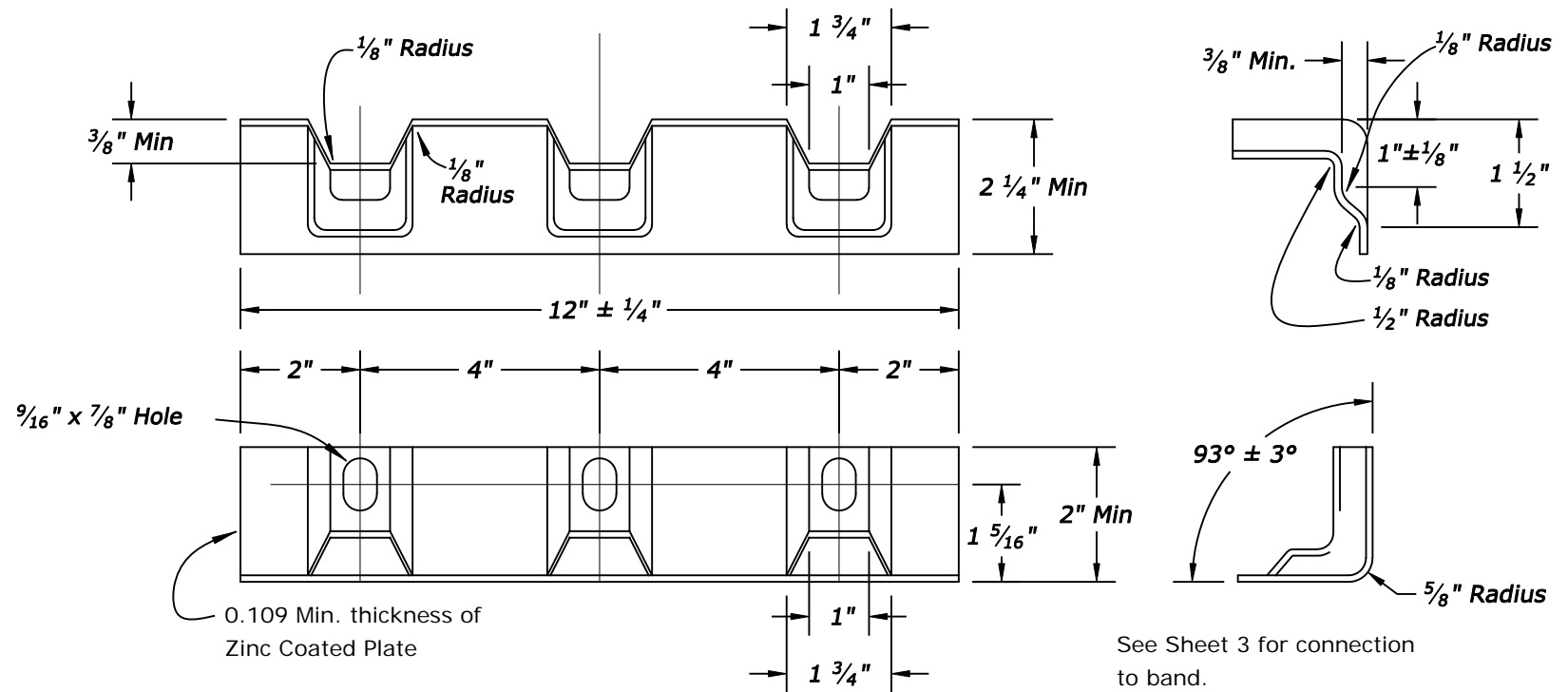
MT FISH, WILDLIFE & PARKS  
MILLTOWN STATE PARK

CULVERT DETAILS

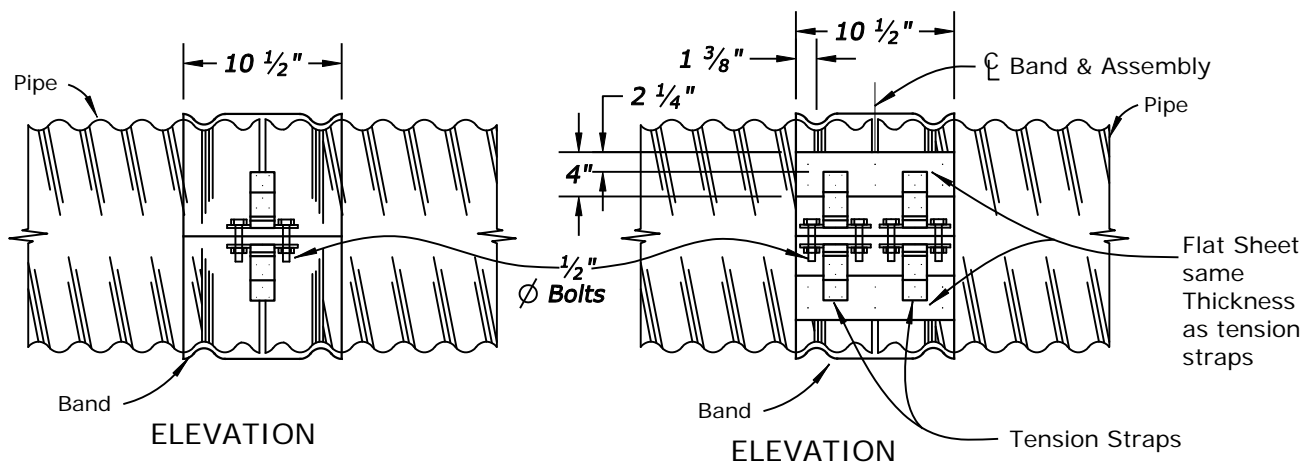
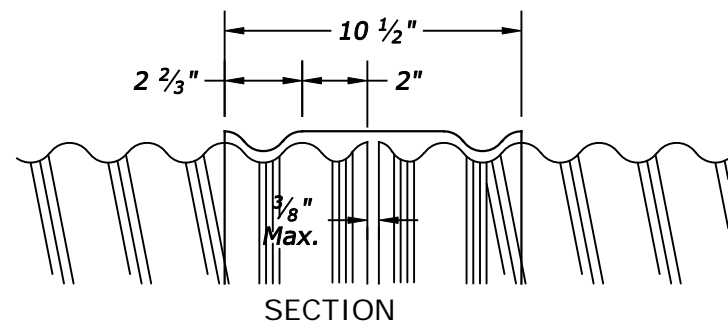
SHEET	
67	77



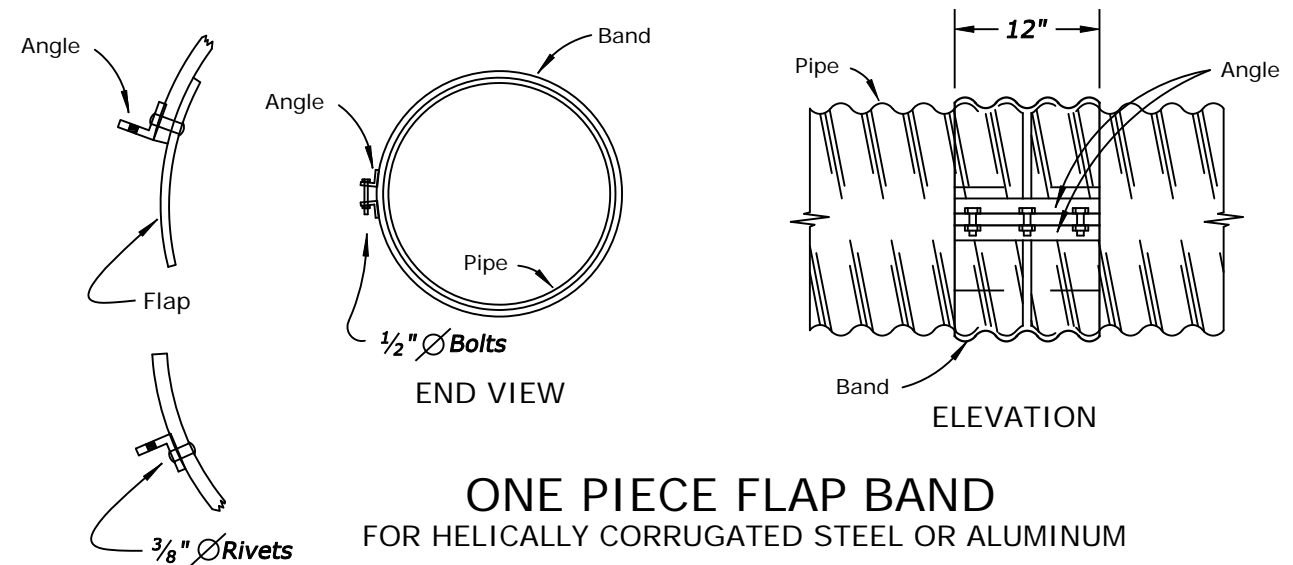
**AMERICAN CULVERT BAND**  
FOR HELICALLY CORRUGATED STEEL PIPE



**NORTHWEST CULVERT ANGLE ALTERNATIVE**  
FOR STEEL PIPE



**HUGGER COUPLING BAND**  
FOR REFORMED END HELICALLY CORRUGATED  
WELDED SEAM STEEL PIPE



**ONE PIECE FLAP BAND**  
FOR HELICALLY CORRUGATED STEEL OR ALUMINUM

BY	DATE	REVISION DESCRIPTION

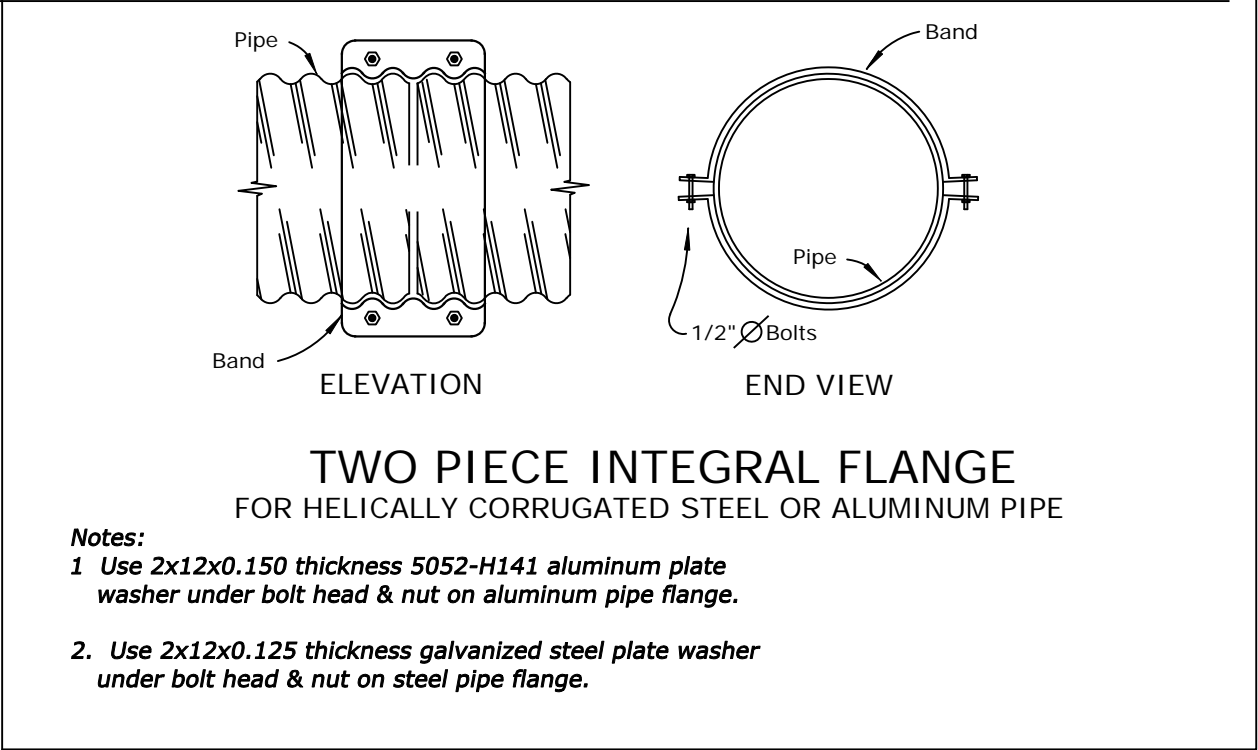
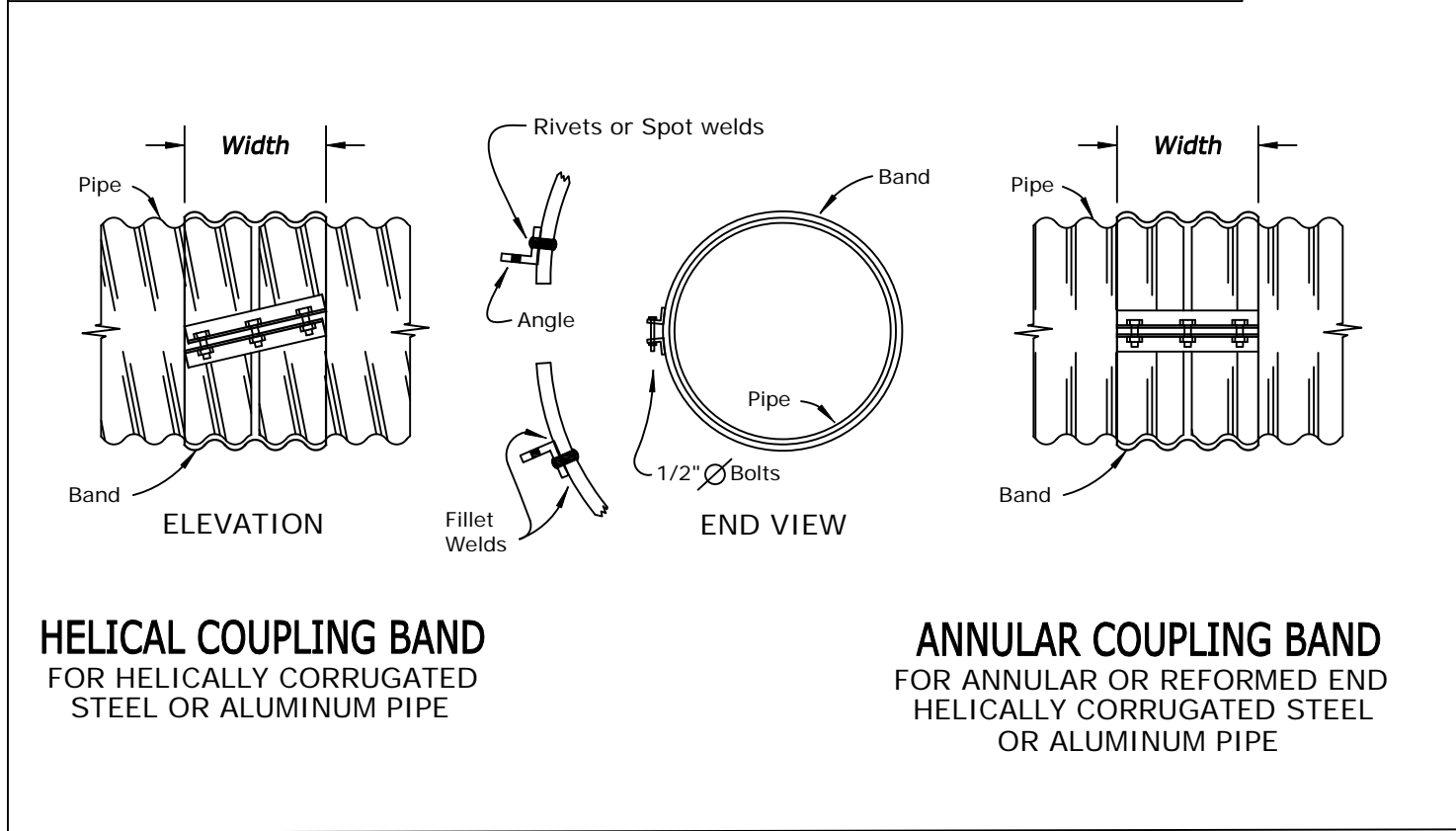
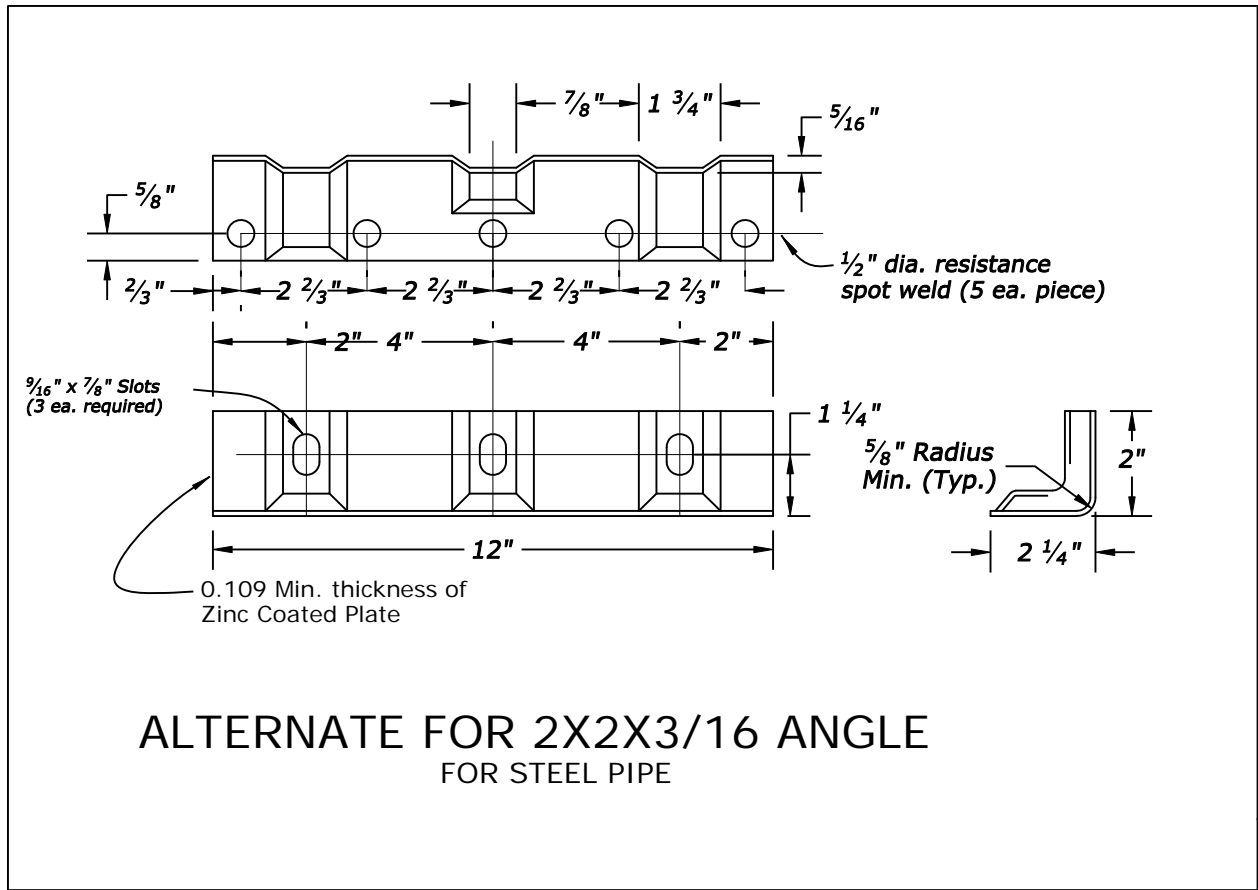
DESIGN	DJL	PROJ. NO.	5943
DRAWN	DJL	DATE	3/2017
CHECKED	CA	SURVEYED	DJ&A

**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Russell Street, Missoula, Montana 59801-8591  
Phone 406/721-4320 Fax 406/648-8371

MT FISH, WILDLIFE & PARKS
MILLTOWN STATE PARK

CULVERT DETAILS
-----------------

SHEET	OF
68	77



BY	DATE	REVISION DESCRIPTION

DESIGN	DJL	PROJ. NO.	5943
DRAWN	DJL	DATE	3/2017
CHECKED	CA	SURVEYED	DJL&A

**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Russell Street, Missoula, Montana 59801-8591  
Phone 406/721-4320 Fax 406/648-8371

MT FISH, WILDLIFE & PARKS  
MILLTOWN STATE PARK

CULVERT DETAILS

SHEET	OF
69	77

						ANGLE - See Note 1-H			
COUPLING TYPE	CORRUGATION	PIPE DIAMETER	WIDTH	SPECIFIED THICKNESS See Note 1-C		DIMENSION	BOLTS NO / DIAMETER	ANGLE TO BAND	
				Pipe Wall	Band			RIVETS	SPOT WELDS
<b><i>Metal Pipe</i></b>  Annular and Helical	2-2/3x1/2  (Steel or Aluminum)	Thru 36	12	0.064-0.138	0.064-0.079	2x2x3/16	3-1/2	3-3/8	5-1/2
		42-60	12	0.064-0.079	0.064	2x2x3/16	3-1/2	3-3/8	5-1/2
		42-60	12	0.064-0.168	0.064-0.109	2x2x5/16	3-1/2	5-3/8	
		66-84	24	0.109-0.168	0.064-0.109	2x2x5/16	5-1/2	7-3/8	
	3x1 and 5x1  (Steel Only)	36-60	14	0.064-0.079	0.064	2x2x3/16	3-1/2	3-3/8	5-1/2
		42-60	14	0.109	0.064	2x2x5/16	3-1/2	5-3/8	
		66-120	25	0.064-0.109	0.064	2x2x5/16	5-1/2	9-3/8	
One Piece Flap Band & Two Piece Integral Flange	2-2/3x1/2  (Steel or Aluminum) see Note 1-I	18-24	12	0.064-0.079	0.064		3-1/2	4-3/8*	* Flap Band Only
								WELDS ANGLE TO BAND	
American Culvert Band	2-2/3x1/2  (Steel Only)	Thru 24	12	0.064-0.109	0.064-0.079	2x2x0.183	3-1/2	7-1/8x3/4 Long Fillet	
		30-36	12	0.064-0.109	0.064	2x2x0.183	3-1/2		
		42-48	12	0.064-0.079	0.064	2x2x0.183	3-1/2		
Northwest Culvert Alternative	2-2/3x1/2  (Steel Only)	Thru 84	12	0.064-0.079	0.064-0.109			5-3/16x3/4 Long Fillet	
		Thru 54	12	0.109	0.064-0.109				
		Thru 42	12	0.138	0.064-0.109				
		Thru 84	12	0.064-0.168	0.064-0.109			5-1/2 Spot	
						BAR AND STRAP			
						NUMBER/ THICKNESS	BOLT DIAMETER	BAR DIAMETER	BAR YIELD STRENGTH P.S.I.
Hugger	2-2/3x1/2  (Steel Only)	Thru 48	10-1/2	0.064-0.109	0.064-0.109	One 0.079	1/2	7/8	32,000
		36-48	10-1/2	0.138-0.168	0.079-0.109	One 0.109	1/2	7/8	45,000
		54-60	10-1/2	0.079-0.168	0.064-0.109	Two 0.079	1/2	7/8	32,000
		66-84	10-1/2	0.109-0.168	0.109	Two 0.109	1/2	7/8	45,000
	3x1  (Steel Only)	36-66	10-1/2	0.064-0.109	0.064	Two 0.079	1/2	7/8	32,000
		72-84	10-1/2	0.109	0.079	Two 0.079	1/2	7/8	32,000
		61-120	10-1/2	0.109	0.109	Two 0.109	1/2	7/8	45,000

GENERAL NOTES

1. Metal Coupling Bands
- A.

These coupling bands meet the strength requirements for special Joint Types under Non-erodible Soil Conditions, Table 2.23.3 of AASHTO's "Standard Specifications for Highway Bridges".
- B.

For pipe walls and bands, the Specified Thickness for steel is given. For aluminum, the Specified Thickness is that for steel less the allowance for the zinc coating which is 0.003 to 0.004 of an inch per AASHTO M-36, M-196 and M-197.
- C.

The minimum specified Thickness for bands is two Specified Thickness less than that for the pipe, but in no case thinner than 0.064 inches, (0.060 for aluminum).
- D.

For pipe arches, use the same width band as for round pipe of equal periphery.
- E.

A two-piece band is required for pipe greater than 42 inches in diameter.
- F.

Tension straps may be connected to bands of plates with either spot or fillet welds that develop minimum required strength of strap.
- G.

For helically corrugated coupling bands, the connection angles may be oriented parallel to the pipe axis, provided connecting holes are slotted lengthwise sufficiently to allow adjustment for the helix angle.
- H.

Use 1 1/4 inch center to center gauge line dimension on attached angle leg for rivets and spot welds.
- I.

The Two Piece Integral Flange coupling band shall not be used on pipe arches.
- J.

Culvert bands shall be made of the same metal as the culverts being joined.
2. Other
- Couplings other than those shown on this drawing may be used upon submission of testing data (see 1-A above) and approval by the Engineer.

Scale 1" = 5'

**NOTE:**  
Construct max. 1.5:1 fill slope in front of the bench.  
engineer may adjust the slope in front of the bench prior to construction.

TOP VIEW

### FOUNDATION ELEVATION

### SIDE ELEVATION

## INTERPRETIVE SIGN DETAILS

Scale 1" = 2'

### SIDE ELEVATION

Scale 1" = 5'

## BENCH DETAILS

## BOULDER DETAIL

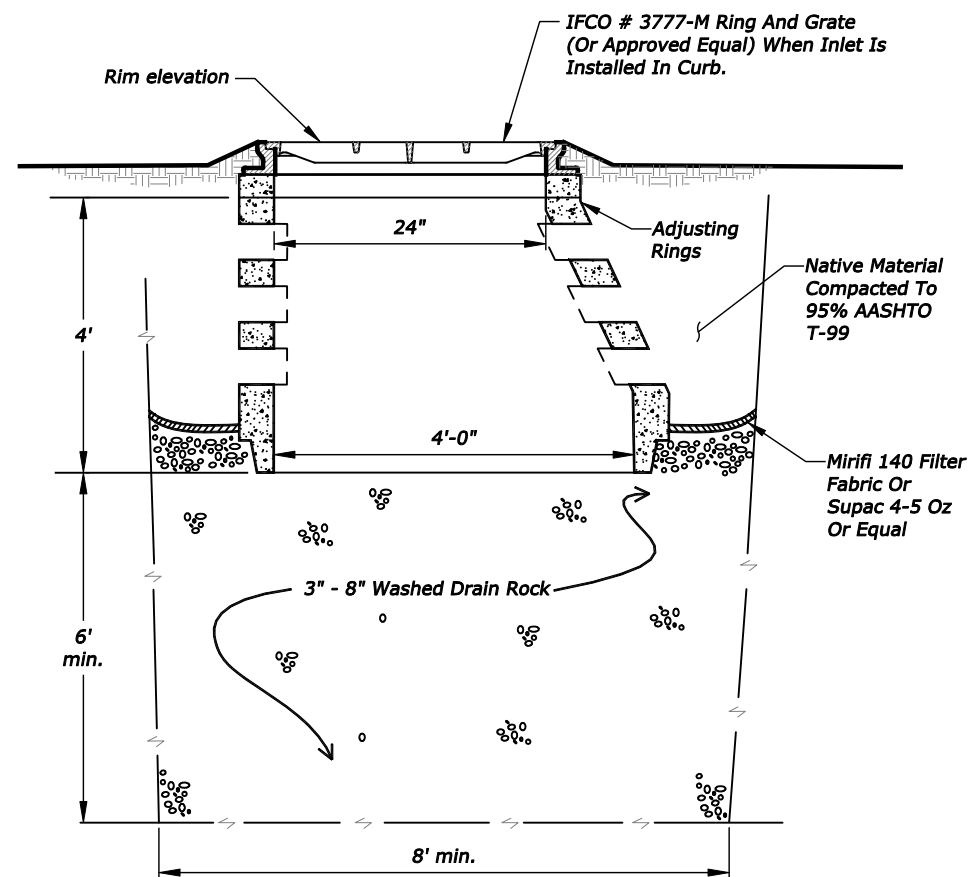
BY	DATE	REVISION DESCRIPTION	DESIGN	<u>DJL</u>	PROJ. NO.	<u>5943</u>
			DRAWN	<u>DJL</u>	DATE	<u>3/2017</u>
			CHECKED	<u>CA</u>	SURVEYED	<u>DJA</u>



MT FISH, WILDLIFE & PARKS  
MILLTOWN STATE PARK

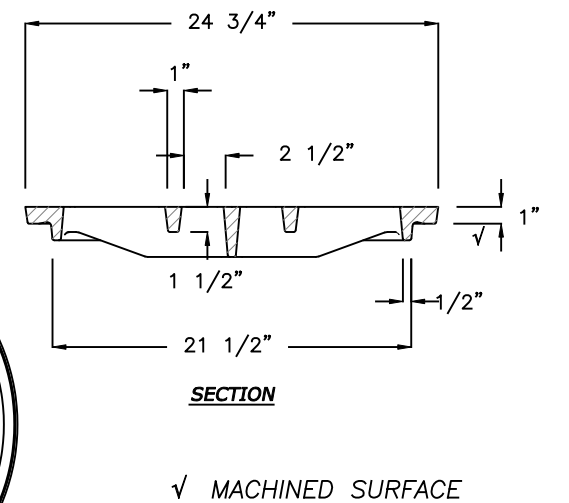
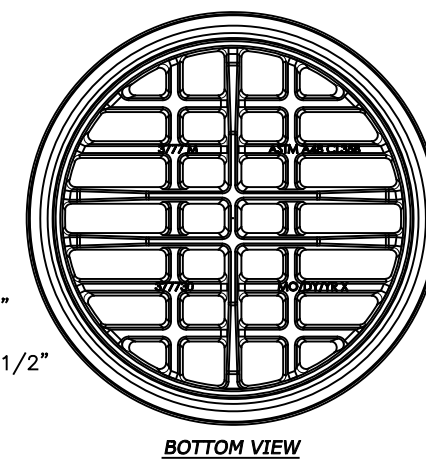
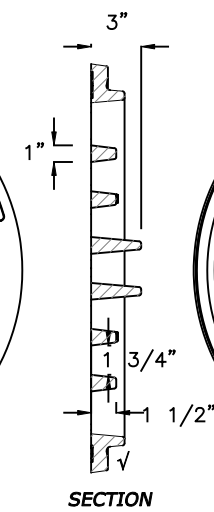
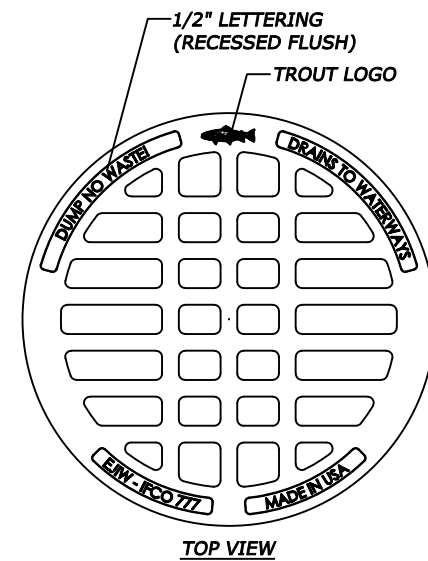
## MISCELLANEOUS DETAILS

SHEET	
71	OF 77



## 4' PRECAST SUMP

No Scale



SEE STD-300D FOR STANDARD  
MANHOLE RING SPECIFICATIONS

## EJIW / IFCO 3777-M OR APPROVED EQUIVALENT

No Scale

BY	DATE	REVISION DESCRIPTION

DESIGN	DJL	PROJ. NO.	5943
DRAWN	DJL	DATE	3/2017
CHECKED	CA	SURVEYED	DJL&A

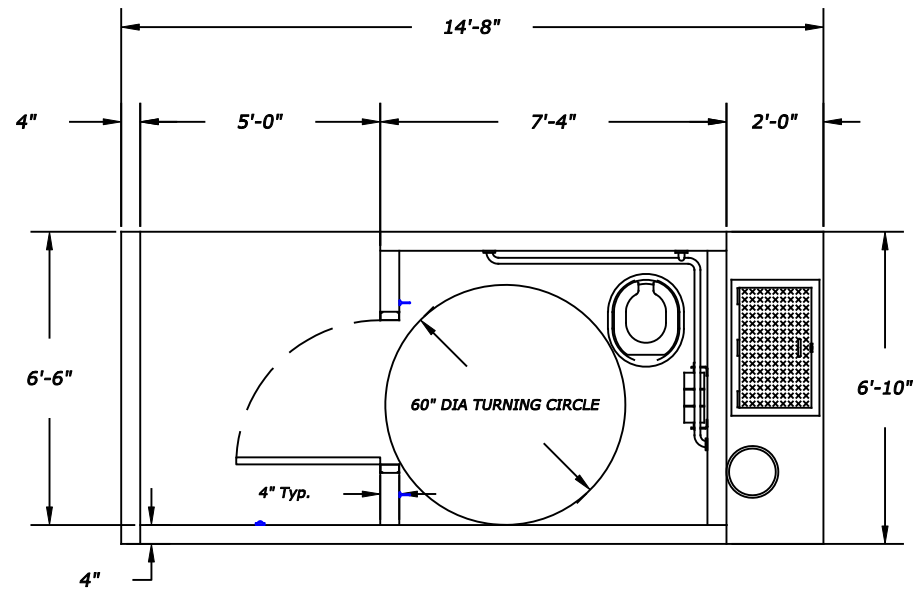
**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Russell Street, Missoula, Montana 59801-8591  
Phone 406/721-4320 Fax 406/648-8371



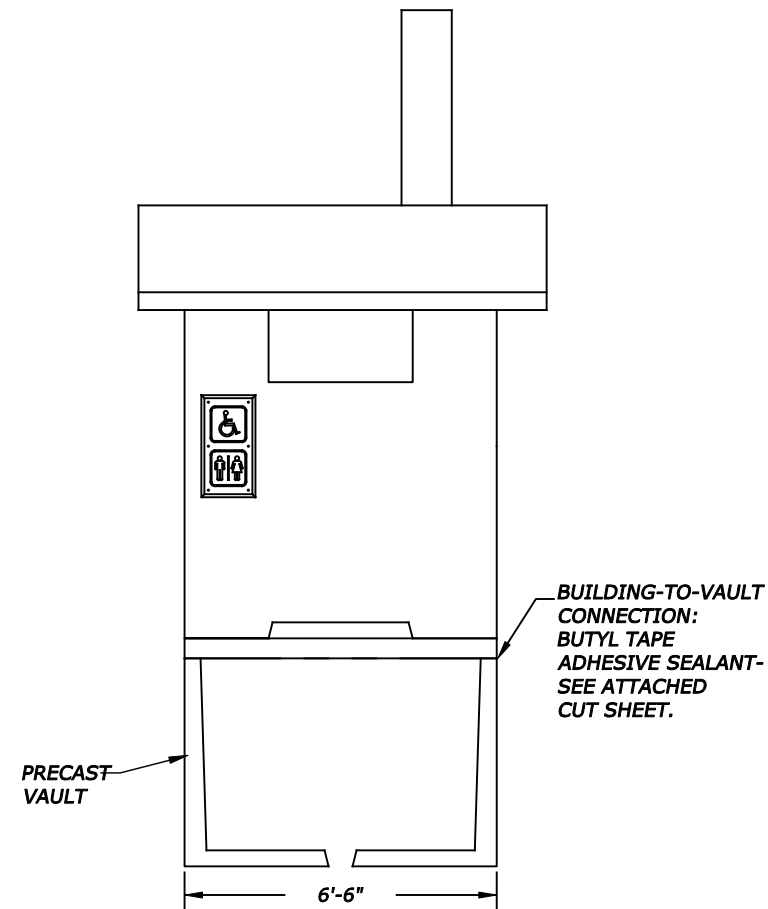
MT FISH, WILDLIFE & PARKS  
MILLTOWN STATE PARK

MISCELLANEOUS DETAILS

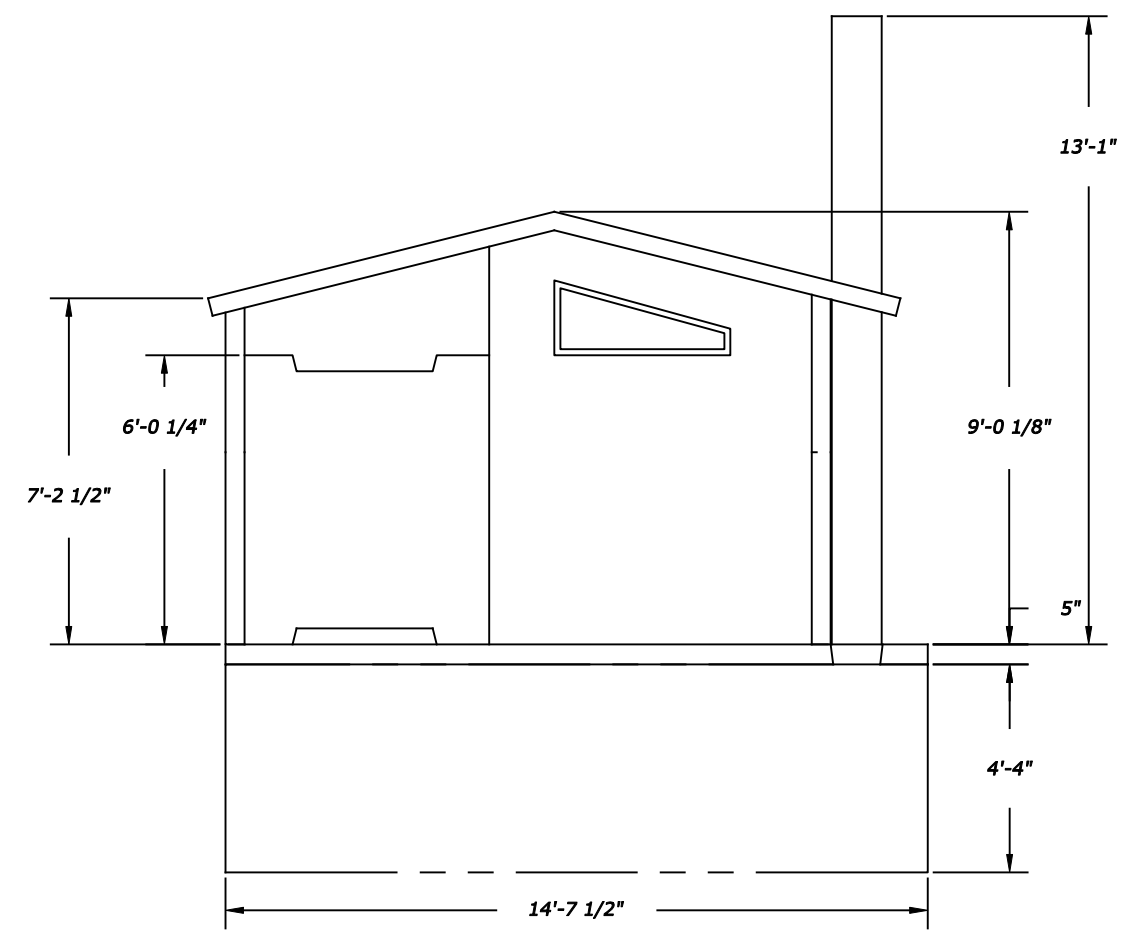
SHEET  
OF  
72 77



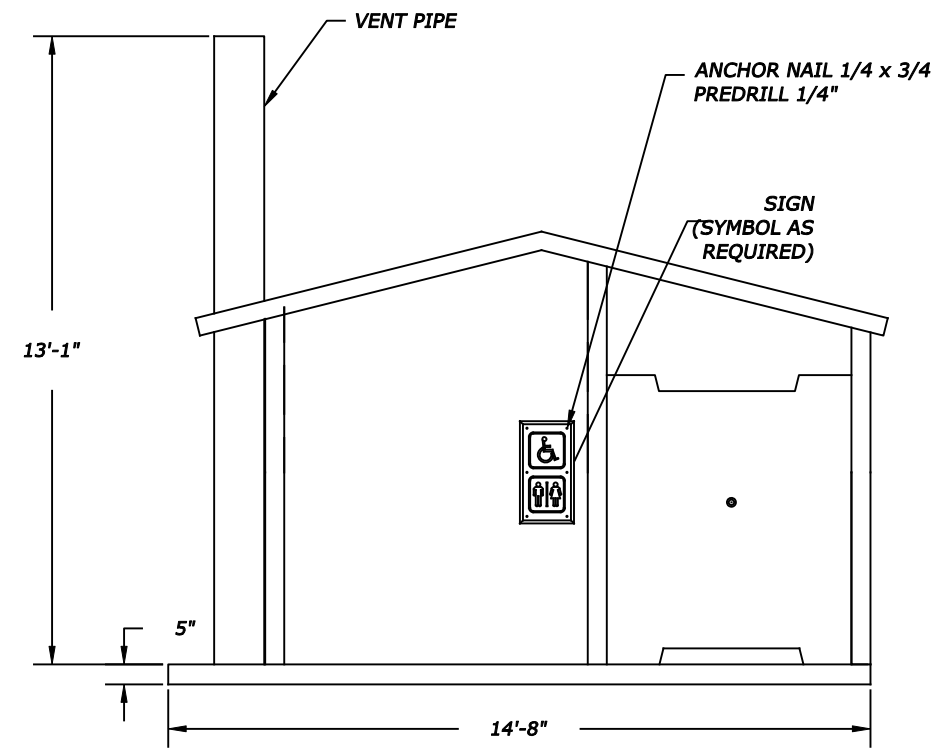
PLAN VIEW



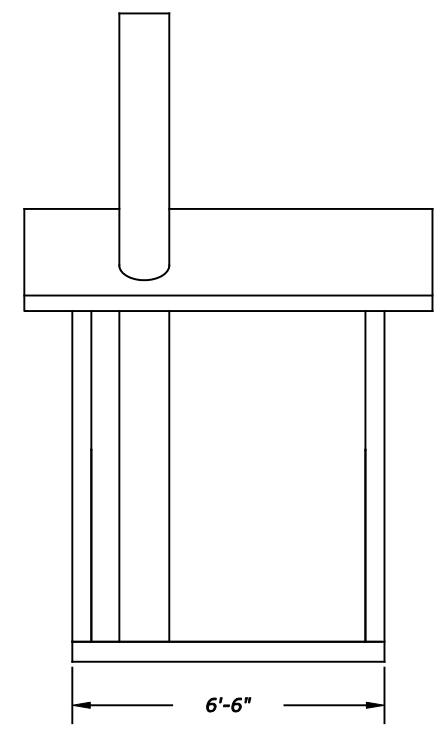
LEFT SIDE ELEVATION



REAR ELEVATION



FRONT ELEVATION

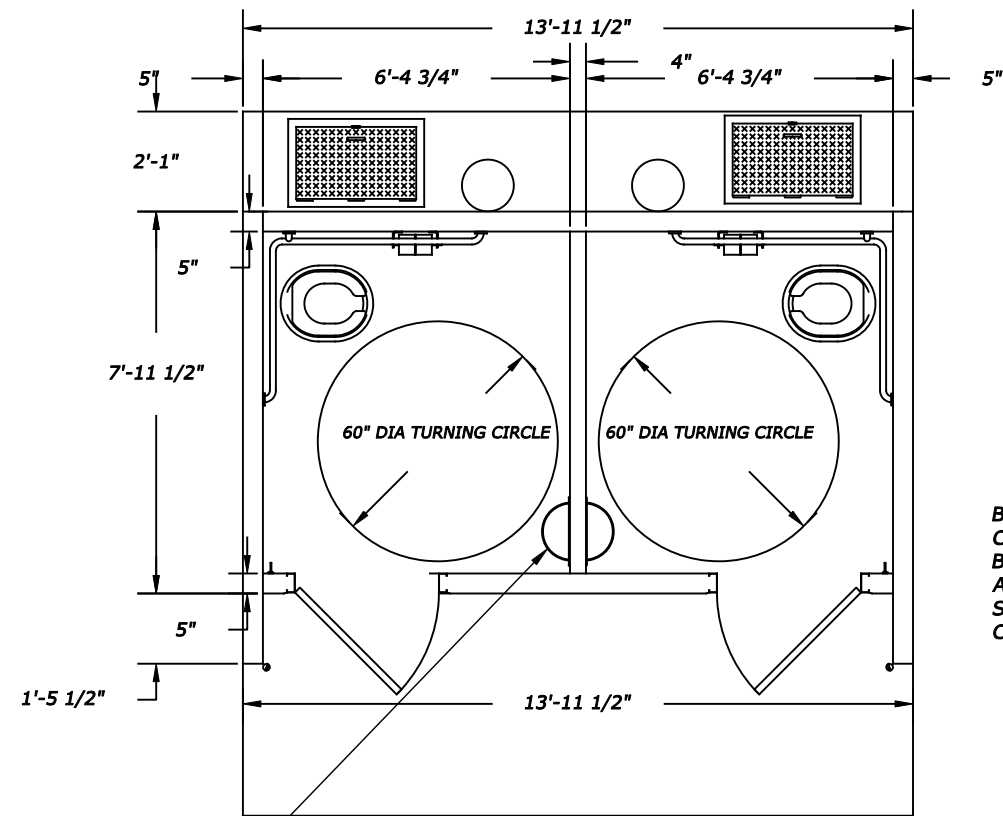


RIGHT SIDE ELEVATION

NOTE:

1. Details shown on this sheet are general representations of the size and type of precast concrete structure desired. The Aspen model supplied by Missoula Concrete is one accepted model. Other equal models may be submitted for approval by the Engineer.
2. Dimensions of building may vary, adjust the location of the building as required to match the sidewalk.

BY	DATE	REVISION DESCRIPTION	DESIGN	DJL	PROJ. NO.	5943	 CONSULTING ENGINEERS & LAND SURVEYORS 3203 Russell Street, Missoula, Montana 59801-8591 Phone 406/721-4320 Fax 406/648-8371	MT FISH, WILDLIFE & PARKS		PRECAST SINGLE VAULT TOILET DETAILS		SHEET	
			DRAWN	DJL	DATE	3/2017		MILLTOWN STATE PARK				73	OF
			CHECKED	CA	SURVEYED	DJ&A							

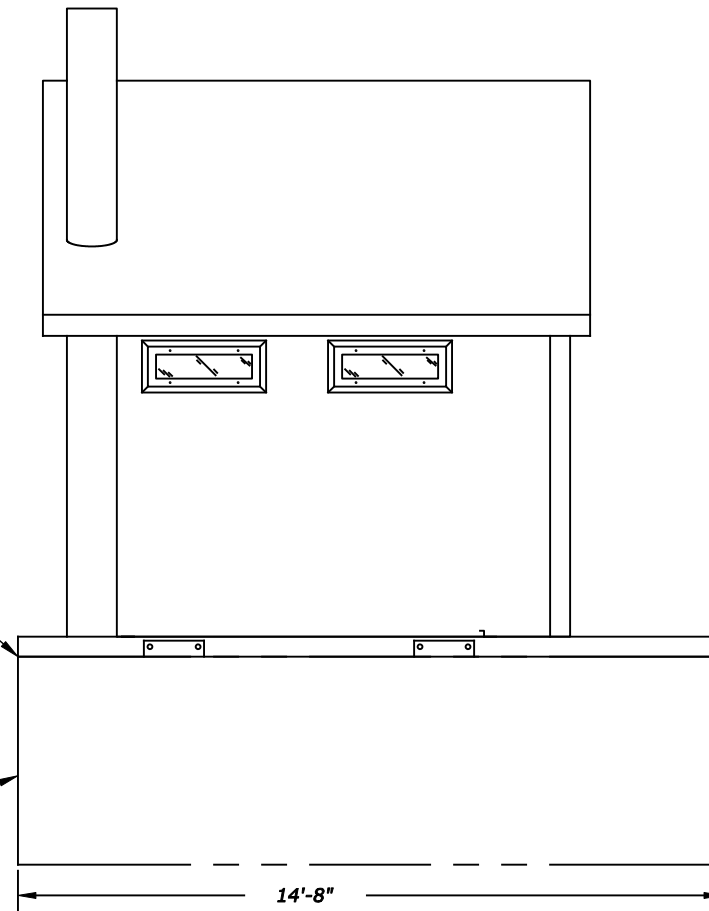


OPTIONAL WASTE PAPER  
BASKET MOUNT BTM 12"  
OFF FINISHED FLOOR

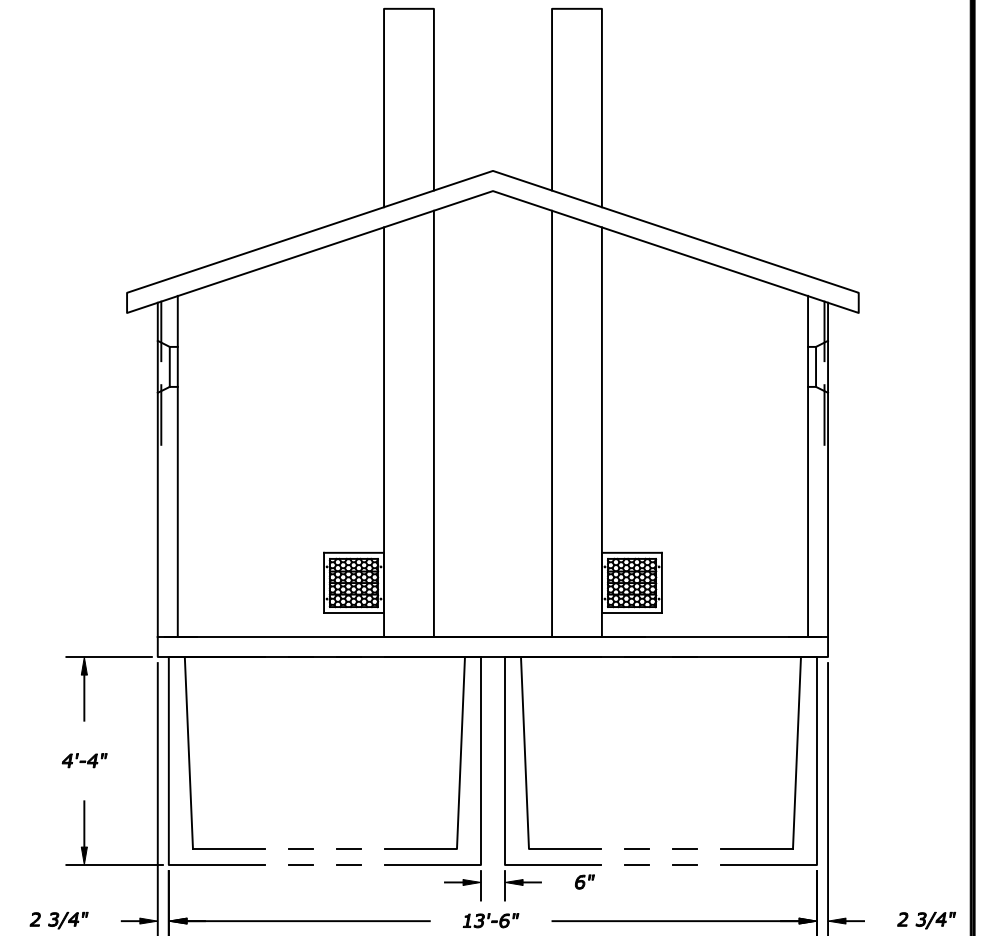
PLAN VIEW

BUILDING-TO-VAULT  
CONNECTION:  
BUTYL TAPE  
ADHESIVE SEALANT-  
SEE ATTACHED  
CUT SHEET.

PRECAST  
VAULT



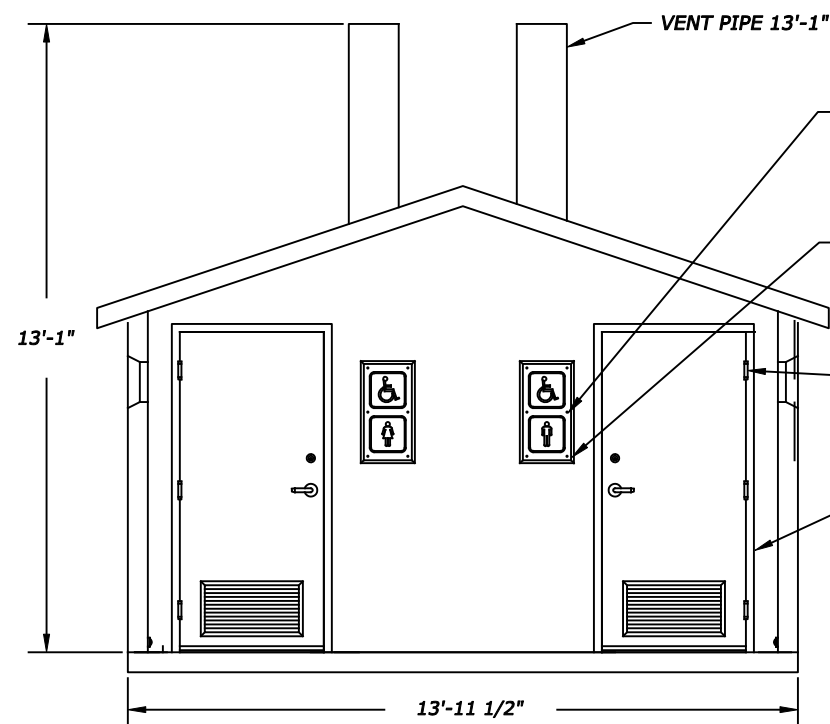
LEFT SIDE ELEVATION



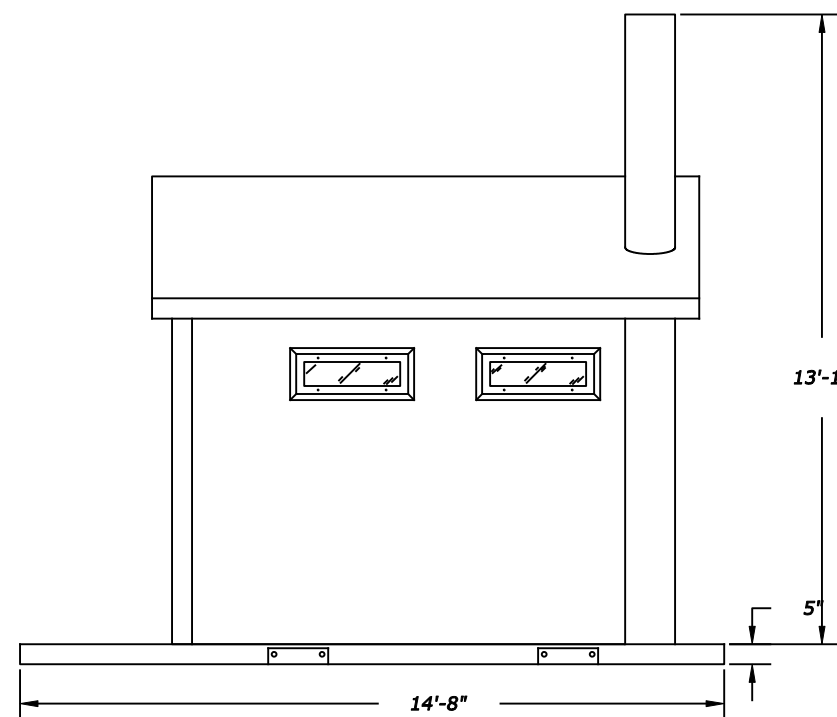
REAR ELEVATION

NOTE:

- Details shown on this sheet are general representations of the size and type of precast concrete structure desired. The Aspen model supplied by Missoula Concrete is one accepted model. Other equal models may be submitted for approval by the Engineer.
- Dimensions of building may vary, adjust the location of the building as required to match the sidewalk.



FRONT ELEVATION



RIGHT SIDE ELEVATION

BY	DATE	REVISION DESCRIPTION

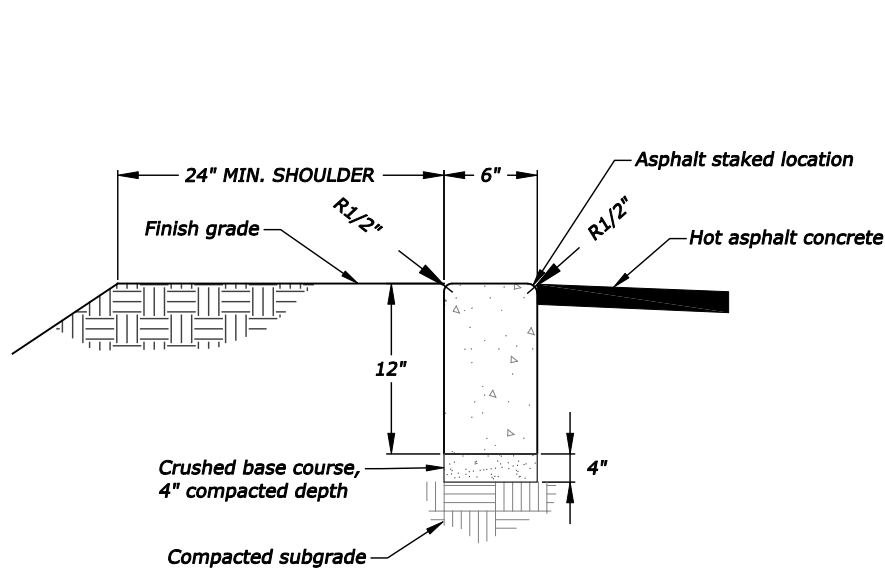
DESIGN DJL PROJ. NO. 5943  
 DRAWN DJL DATE 3/2017  
 CHECKED CA SURVEYED DJ&A

**D&A, P.C.**  
 CONSULTING ENGINEERS & LAND SURVEYORS  
 3203 Russell Street, Missoula, Montana 59801-8591  
 Phone 406/721-4320 Fax 406/648-8371

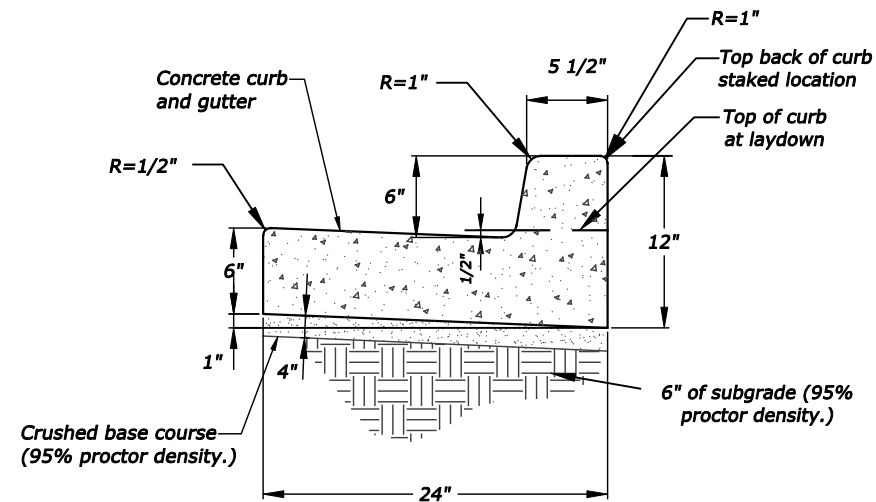
MT FISH, WILDLIFE & PARKS  
 MILLTOWN STATE PARK

PRECAST DOUBLE VAULT TOILET DETAILS

SHEET  
 OF  
 74 77

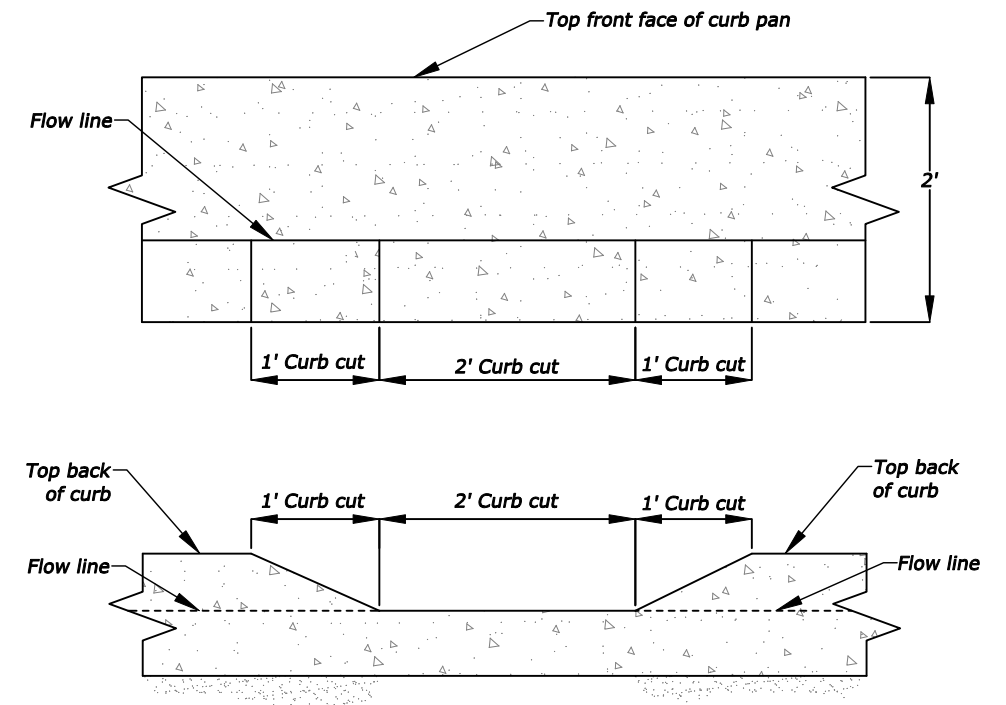


**RIBBON CURB DETAIL**  
NO SCALE

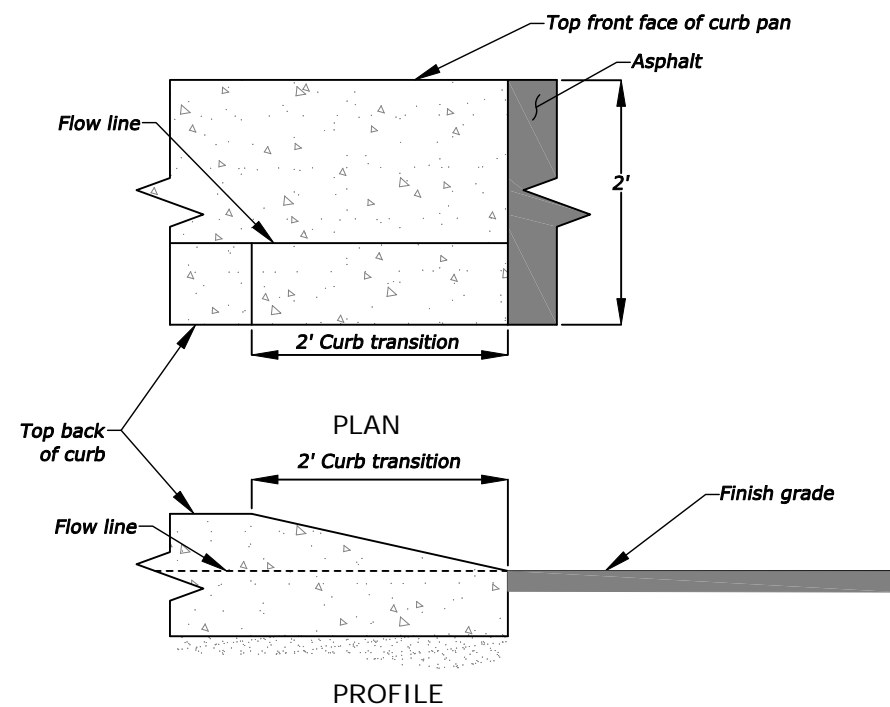


1. Contraction joints shall be placed every 10 feet and shall be 3/4" deep.
2. Expansion joints of one-half (1/2") inch thick mastic material shall be placed at the following locations:
  - 2.1. P.C.s and P.T.s of curves.
  - 2.2. Grade breaks.
3. Expansion joints not allowed between the curb and sidewalk.
4. Finished curb surface shall have broom texture.
5. No curb shall be placed without a final form or string line inspection by the engineer.
6. Construction materials and procedures shall conform to project specifications.

**CONCRETE CURB & GUTTER DETAIL**  
(NO SCALE)

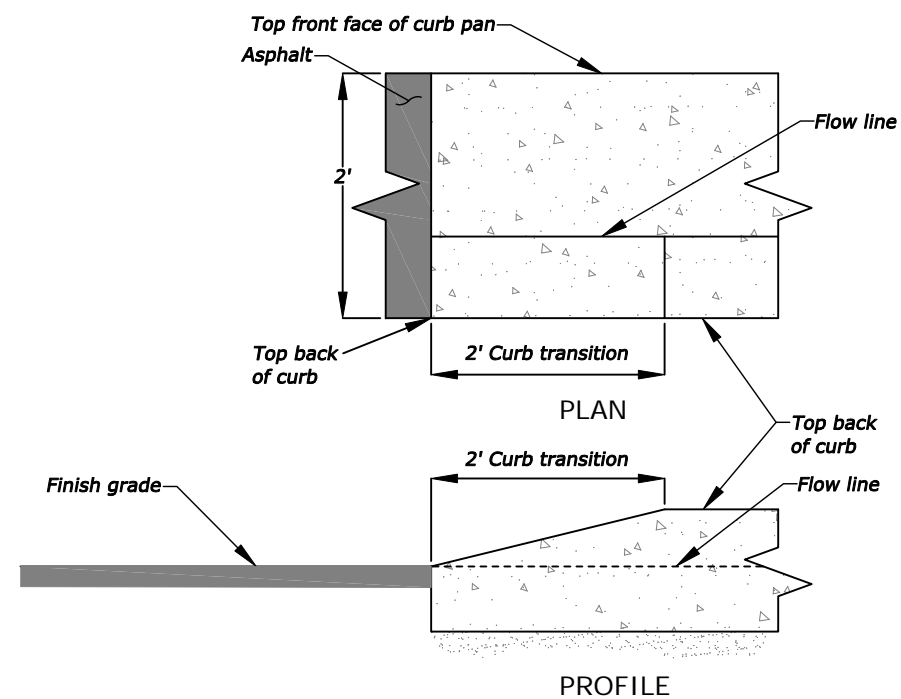


**CURB CUT DETAIL**  
No Scale

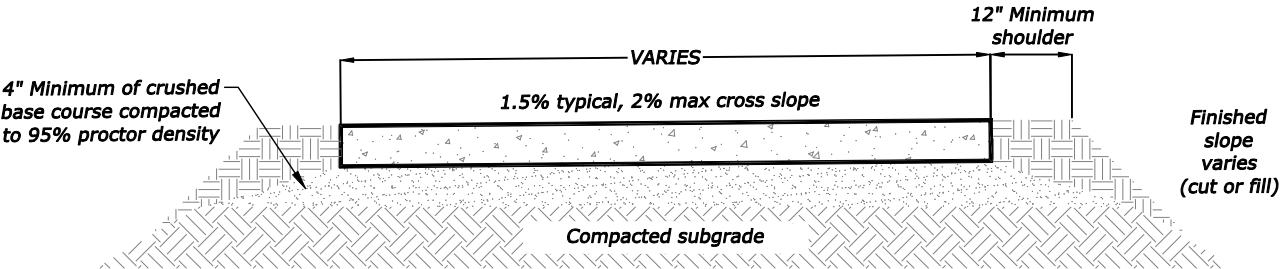
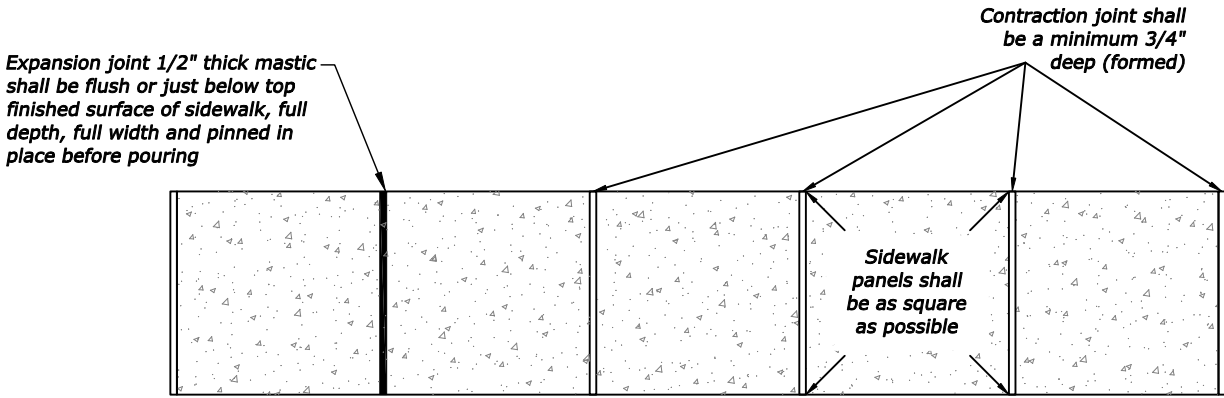


NOTE:  
See curb & gutter detail

**CURB TRANSITION DETAIL**  
No Scale



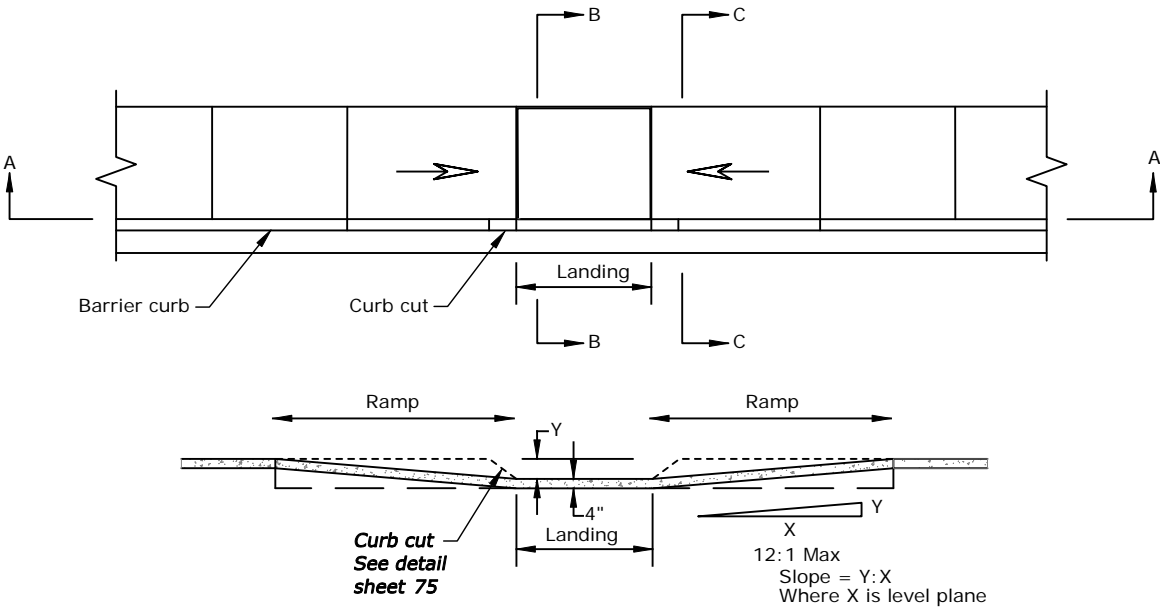
BY	DATE	REVISION DESCRIPTION	DESIGN	DJL	PROJ. NO.	5943	 CONSULTING ENGINEERS & LAND SURVEYORS 3203 Russell Street, Missoula, Montana 59801-8591 Phone 406/721-4320 Fax 406/648-8371		MT FISH, WILDLIFE & PARKS  MILLTOWN STATE PARK		CONCRETE DETAILS		SHEET OF 7577	
			DRAWN	DJL	DATE	3/2017								
			CHECKED	CA	SURVEYED	DJ&A								



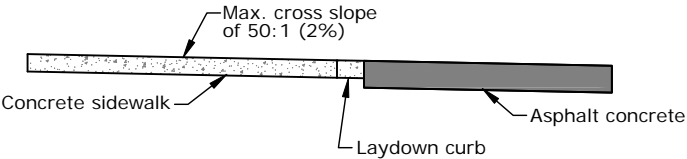
1. Subgrade shall be compacted to 95% proctor density.
2. Minimum of four (4") inches of crushed base course shall be compacted to 95% proctor density.
3. Contraction joints shall be spaced so as to form as near a square panel as possible, no single panel shall exceed eight (8') feet on any side.
4. Contraction joints shall be a minimum three-fourths (3/4") inches deep.
5. Expansion joints of one-half (1/2") inch thick mastic material shall be placed at the following locations:
  - 5.1. Every fifty (50') feet of uninterrupted sidewalk.
  - 5.2. P.C.s and P.T.s of curves.
  - 5.3. Grade breaks.
  - 5.4. All expansion joints must be placed flush or just below top finished surface of sidewalk.
  - 5.5. All expansion joints must be full depth, full width and pinned in place before the forms will be approved.
6. Expansion joints not allowed between the curb and sidewalk.
7. Finished sidewalk surface shall have broom texture.
8. No sidewalk shall be poured without an inspection and approval of form placement by the engineer. construction materials and procedures shall conform to project specifications.

CONCRETE SIDEWALK DETAIL

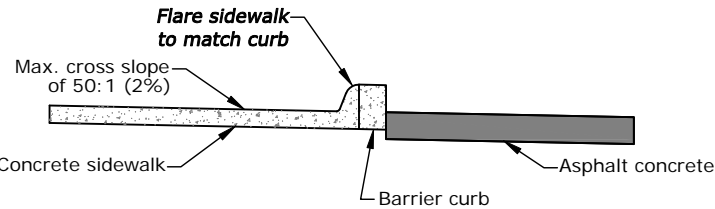
No Scale



SECTION A-A



SECTION B-B



SECTION C-C

SIDEWALK RAMP

No Scale

BY	DATE	REVISION DESCRIPTION

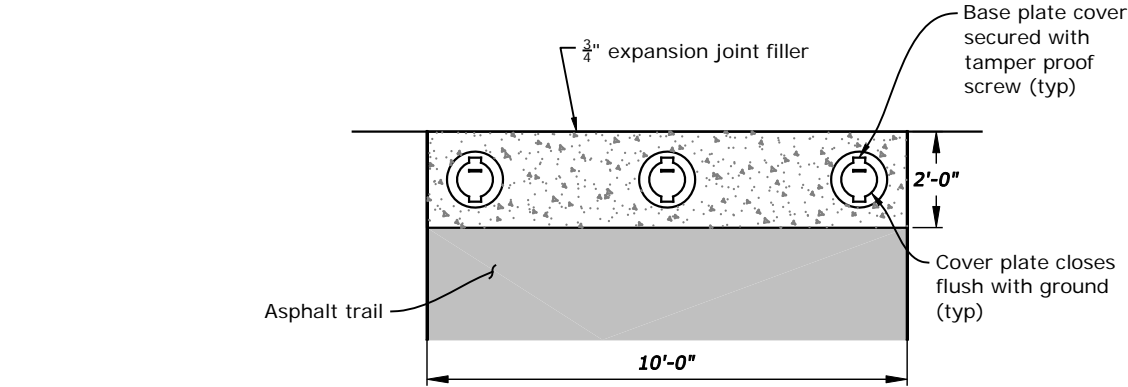
DESIGN	DJL	PROJ. NO.	5943
DRAWN	DJL	DATE	3/2017
CHECKED	CA	SURVEYED	DJ&A

**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Russell Street, Missoula, Montana 59801-8591  
Phone 406/721-4320 Fax 406/648-8371

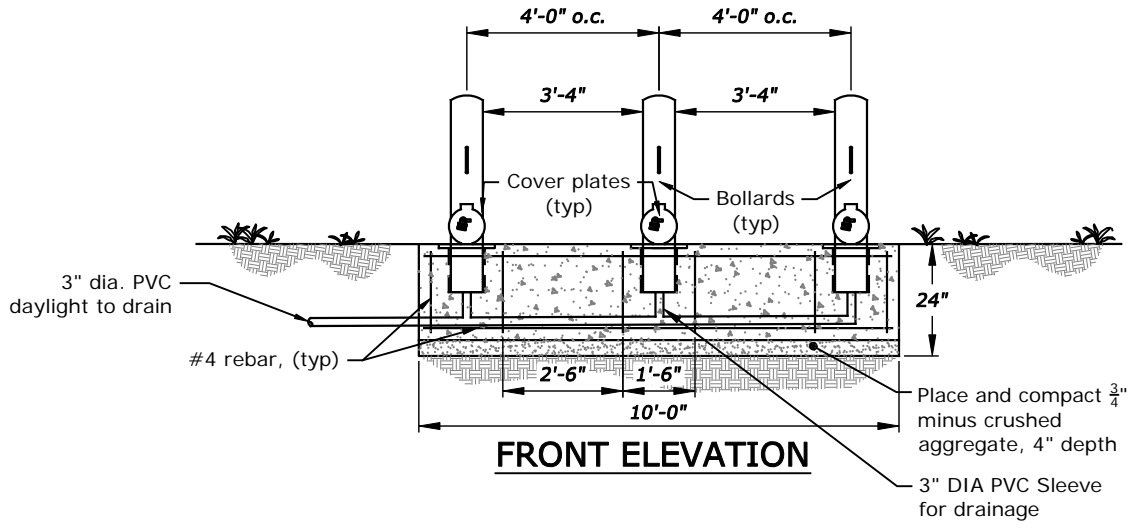
MT FISH, WILDLIFE & PARKS  
MILLTOWN STATE PARK

CONCRETE DETAILS

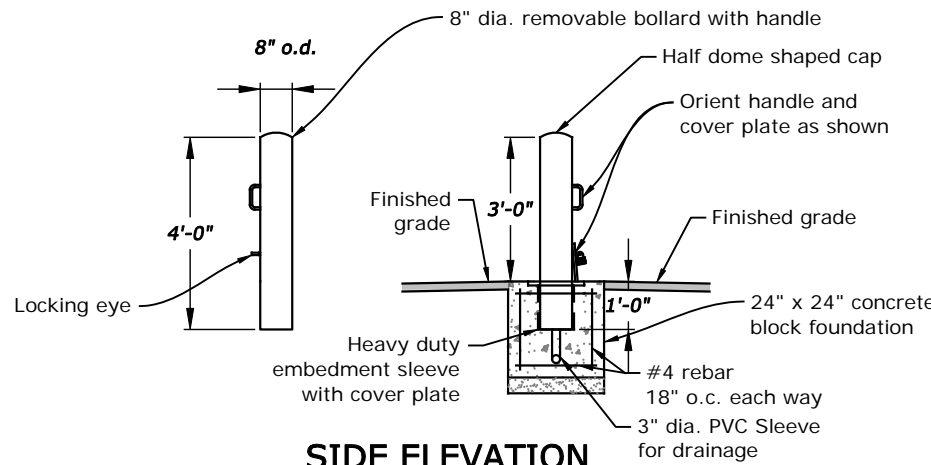
SHEET	
76	77



**TOP VIEW**



**FRONT ELEVATION**



**SIDE ELEVATION**

**TRAIL A - STA 230+70.93  
REMOVABLE BOLLARD DETAILS**

Scale 1" = 4'

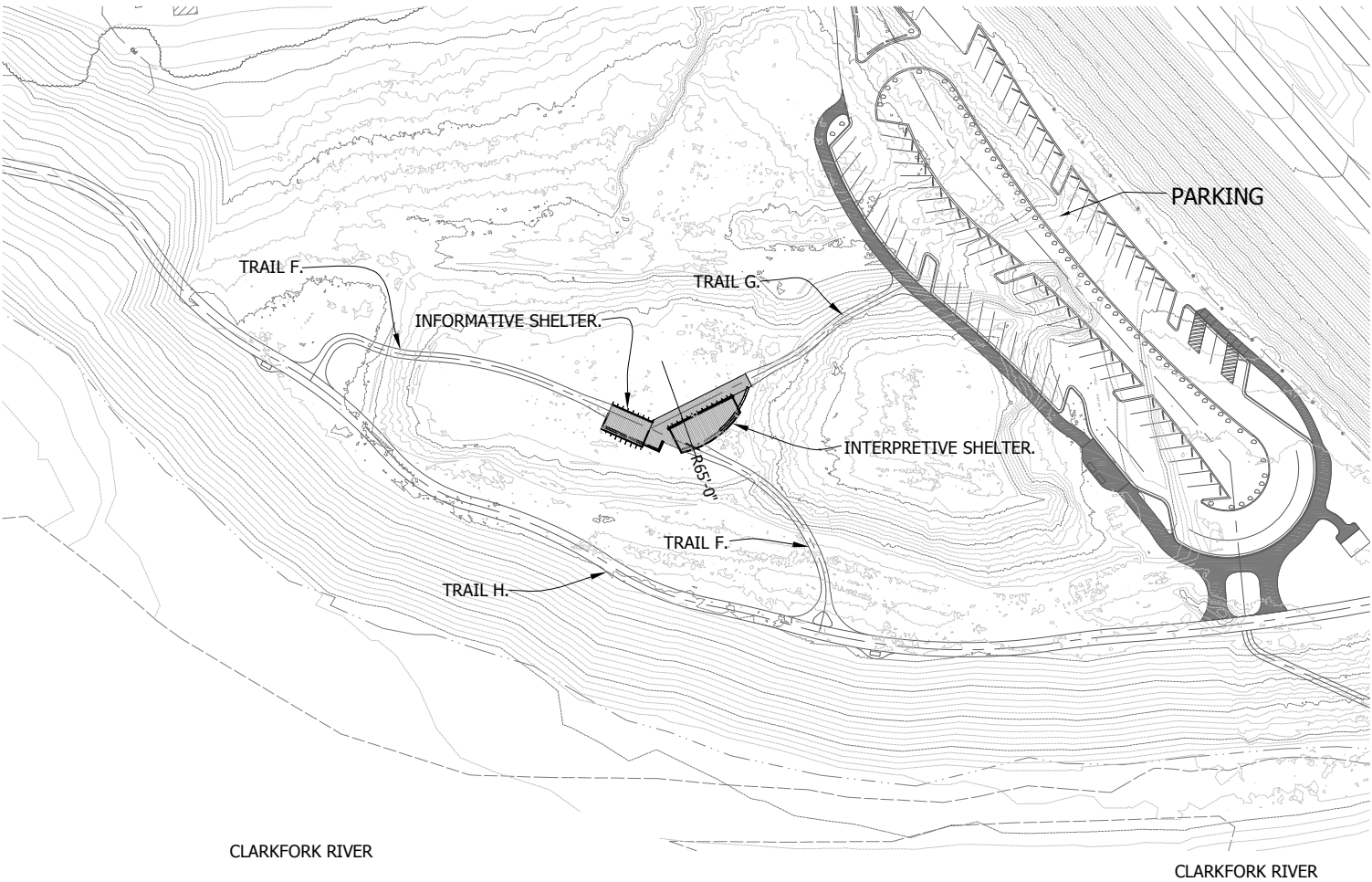
BY	DATE	REVISION DESCRIPTION	DESIGN	PROJ. NO.	MT FISH, WILDLIFE & PARKS	BOLLARD DETAILS	SHEET	
					MILLTOWN STATE PARK		77	77

GENERAL NOTES

1. EVERY ATTEMPT HAS BEEN MADE TO ASSURE THE ACCURACY OF THE DRAWINGS THROUGH FIELD VERIFICATION & EXISTING PLAN REVIEW. THE CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CONDITIONS, SIZES, QUANTITIES, & COORDINATE WITH THE EXPECTED WORK BEFORE CONSTRUCTION/ ORDERING/ INSTALLATION & NOTIFY ARCHITECT IMMEDIATELY FOR WRITTEN CLARIFICATION IF ANY DISCREPANCY EXISTS.
2. DRAWINGS CONTAINED WITHIN THESE DOCUMENTS ARE ABBREVIATED IN NATURE. THE CONTRACTOR IS EXPECTED TO USE QUALITY, ACCEPTABLE, CONSTRUCTION PRACTICES & TECHNIQUES FOR THE EXTENT & TYPE OF WORK DESCRIBED HEREIN. FIELD VERIFY ALL CONDITIONS & COORDINATE WITH ANTICIPATED WORK PRIOR TO CONSTRUCTION.
3. ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE STANDARDS & REGULATIONS AS PRESCRIBED BY THE 2009 INTERNATIONAL BUILDING CODE, UNIFORM MECHANICAL CODE, UNIFORM PLUMBING CODE, AMERICAN NATIONAL STANDARDS, & ANY APPLICABLE LOCAL CODES & REGULATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTATION OF ACCURATE AS-BUILTS INFORMATION.
5. DO NOT SCALE DRAWINGS. VERIFY ALL EXISTING DIMENSIONS IN THE FIELD; IF A DIMENSION DOES NOT EXIST OR IS IN ERROR, CONTACT THE OWNER IMMEDIATELY FOR WRITTEN CLARIFICATION.
6. CONTRACTOR(S) SHALL GUARANTEE THEIR WORK FOR A PERIOD OF NO LESS THAN ONE YEAR FROM THE DATE OF FINAL COMPLETEION. CONTRACTOR(S) SHALL REPLACE ALL DEFECTIVE PARTS & SUPPLIES AT THEIR COST.
7. CONTRACTOR SHALL SUPPLY ALL PARTS, MATERIALS, & LABOR REQUIRED TO COMPLETE THE WORK INDICATED WITH ALL ACCESSORIES, FINISHES, & SYSTEMS NECESSARY OR APPLICABLE TO ENSURE A COMPLETE & FUNCTIONAL PROJECT UPON COMPLETION.
8. CONTRACTOR TO REFER TO ALL DRAWINGS INDICATED ON THIS COVER SHEET FOR DESCRIPTION OF WORK. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL REQUIREMENTS OF THE DRAWINGS & THE WORK OF ANY & ALL EMPLOYEES, SUB-CONTRACTORS, SUB-SUB-CONTRACTORS OR ANY PERSON OR TRADE PARTICIPATING IN ANY ASPECT OF THE WORK OUTLINED.
9. ANY ITEM SHOWN OR REFERENCED IN ONE INSTANCE SHALL BE AS IF SHOWN IN ALL INSTANCES.
10. CONTRACTOR SHALL COORDINATE ALL SIZES OF EXISTING OPENINGS WITH THE REQUIREMENTS FOR ANY NEW WORK.
11. ALL NEW FINISHES SHALL ALIGN WITH ADJOINING SURFACES UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE SMOOTH, EVEN TRANSITIONS FROM ONE SURFACE TO ANOTHER.
12. ALL FINISHES SHALL BE SCRIBED TO ADJACENT SURFACES TO ENSURE COVERAGE OF ANY GAPS OR SPACES NOT INTENDED TO BE EXPOSED.
13. ALL DAMAGED OR DETERIORATED BUILDING ELEMENTS SHALL BE REPAIRED OR REPLACED IN-KIND TO PROVIDE A SOUND & VISUALLY COMPLETE FINISH STRUCTURE.
14. THE OWNER HAS FINAL AUTHORITY OR DETERMINATION OVER AREAS RELATED TO APPEARANCE & FINISH.
15. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLISHED MATERIAL, RECYCLE ALL DEMOLISHED MATERIALS WHEN POSSIBLE. COORDINATE WASTE AND RECYCLE LOCATIONS.

ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT	FT	FEET/FOOT OR FIRE TREATED	RA	RETURN AIR
ABV	ABOVE	FTNG	FOOTING	RB	RUBBER BASE
A/C	AIR CONDITIONING	FRP	FIBERGLASS REINFORCED PANEL	RD	ROOF DRAIN
ACT	ACOUSTICAL CEILING TILE	GA	GAUGEOR GAGE	RECY	RECYCLE(D)
ADDL	ADDITIONAL	GALV	GALVANIZED	REF	REFERENCE
ADJ	ADJUSTABLE	GYP	GYP SUM BOARD	REFRIG	REFRIGERATOR OR REFRIGERATION
AFF	ABOVE FINISH FLOOR	GC	GENERAL CONTRACTOR	REINF	REINFORCE
ALT	ALTERNATE	GL	GLASS, GLAZING	REQD	REQUIRED
ALUM	ALUMINUM	GW	GYP SUM WALL BOARD	RM	ROOM
ARCH	ARCHITECT(URAL)	GYP	GYP SUM	RO	ROUGH OPENING
AWN	AWNING	HC	HANDICAP	ROW	RIGHT OF WAY
B/	BOTTOM OF	HDR	HEADER	S	SOUTH
BD	BOARD	HDW	HARDWARE	SC	SOLID CORE
BLDG	BUILDING	HM	HOLLOW METAL	SCHED	SCHEDULE
BLKG	BLOCKING	HORIZ	HORIZONTAL	SECT	SECTION
BM	BEAM OR BENCHMARK	HR	HOUR	SF	SQUARE FEET
BRG	BEARING	HT	HEIGHT	SFRM	SPRAY APPLIED FIRE RESISTIVE MATERIAL
BTWN	BETWEEN	HTD	HEATED	SGL	SINGLE
BUR	BUILT UP ROOF	HVAC	HEATING/VENTILATION & AIR CONDITIONING	SHT	SHEET
CAB	CABINET	ID	INSIDE DIAMETER	SHTG	SHEATHING
CJ	CONTROL JOINT	INFO	INFORMATION	SIM	SIMILAR
CL	CENTERLINE	ISO	ISOCYANURATE	SPECS	SPECIFICATIONS
CLG	CELLING	INSUL	INSULATE / INSULATED / INSULATION	SOD	SLAB ON DECK
CMU	CONCRETE MASONRY UNIT	INT	INTERIOR	SOG	SLAB ON GRADE
CO	CLEAN OUT	INV	INVERT	SOH	SAME OPPOSITE HAND
COL	COLUMN	JT	JOINT	SS	STAINLESS STEEL
CONC	CONCRETE	J-BOX	JUNCTION BOX	ST	STONE TILE
CONT	CONTINUOUS	KIT	KITCHEN	STND	STANDARD
CONST	CONSTRUCTION	L	LONG / LENGTH	STL	STEEL
CG	CORNERGUARD	LAM	LAMINATE(D)	STRUCT	STRUCTURAL
CPT	CARPET	LAV	LAVATORY	TEMP	TEMPERED
CSMT	CASEMENT	LF	LINEAR FEET	THK	THICK
CT	CERAMIC TILE	LT	LIGHT	THRESH	THRESHOLD
D	DEEP	MAS	MASONRY	T.O.	TOP OF
DF	DRINKING FOUNTAIN	MATL	MATERIAL	TOBM	TOP OF BEAM
DH	DOUBLE HUNG	MAX	MAXIMUM	T.O.P.	TOP OF PLATE
DIM(S)	DIMENSIONS	MECH	MECHANIC(AL)	T.O.S.	TOP OF STEEL
DISP	DISPENSER	MEZZ	MEZZANINE	T/	TOP OF
DN	DOWN	MFR	MANUFACTURER	T&G	TONGUE AND GROOVE
DR	DRAIN	MH	MANHOLE	TEL	TELEPHONE
DS	DOWNSPOUT	MIN	MINIMUM	THK	THICK
DTL	DETAIL	MISC	MISCELLANEOUS	TRANS	TRANSOM
DWG	DRAWING	MO	MASONRY OPENING	TV	TELEVISION
E	EAST	MTL	METAL	TYP	TYPICAL
EA	EACH	N	NORTH	UL	UNLESS NOTED OTHERWISE
EC	EXISTING COLUMN	NIC	NOT IN CONTRACT	UNO	UNO
EJ	EXPANSION JOINT	NOM	NOMINAL	VB	VINYL BASE
ELEC	ELECTRICAL	NTS	NOT TO SCALE	VCT	VINYL COMPOSITION TILE
EL	ELEVATION	OC	ON CENTER	VERT	VERTICAL
ELEV	ELEVATOR	OD	OUTSIDE DIAMETER OR OVERFLOW DRAIN	VEST	VESTIBULE
EQ	EQUAL	OPNG	OPENING	VIF	VERIFY IN FIELD
EQUIP	EQUIPMENT	OPP	OPPOSITE	VP	VEENER PLASTER
ENC	ELECTRIC WATER COOLER	OSB	ORIENTED STRAND BOARD	VR	VAPOR RETARDER
EXH	EXHAUST	OVD	OVERHEAD	VT	VINYL TILE
EXIST	EXISTING	PL	PLATE	VWC	VINYL WALL TILE
EXP	EXPANSION OR EXPOSED	PLAM	PLASTIC LAMINATE	W	WIDE OR WEST
EXT	EXTERIOR	PLUMB	PLUMBING	W/	WITH
FACP	FIRE ALARM CONTROL PANEL	PLYWD	PLYWOOD	WC	WATER CLOSET
FD	FLOOR DRAIN	PNL	PANEL	WD	WOOD
FE	FIRE EXTINGUISHER	PNT	PAINT	WDW	WINDOW
FEC	FIRE EXTINGUISHER CABINET	POLY	POLYESTER OR POLYOLEFIN	WG	WALL GUARD
F.F.	FINISH FLOOR	PSF	POUNDS PER SQUARE FOOT	WH	WATER HEATER
FIN	FINISH	PST	POUNDS PER SQUARE INCH	W/IN	WITHIN
FIXT	FIXTURE	PT	PRESSURE TREATED OR POINT	W/O	WITHOUT
FLR	FLOOR	PVMT	PAVEMENT	WP	WATERPROOF
FND	FOUNDATION	QT	QUARRY TILE	WR	WATER RESISTANT
FR	FRAME	QTR	QUARTER	WT	WEIGHT
FRMG	FRAMING	QTY	QUANTITY	WWF	WELDED WIRE FABRIC

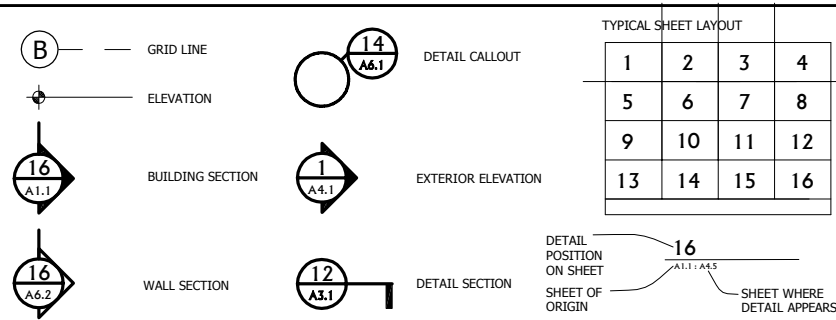


11 SITE PLAN

A1.0 : A1.0

1/128" = 1'-0"

EXPLANATION OF SYMBOLS



PROJECT DESCRIPTION

MILLTOWN STATE PARK PAVILION  
EDUCATIONAL PAVILION W/ INTERPRETIVE AND INFORMATIVE SPACES

PAVILION SQUARE FOOTATGES

INTERPRETIVE SHELTER 840 SQ.FT  
INFORMATIVE SHELTER 312 SQ.FT  
CIRCULATION 1870 SQ., FT  
(INCLUDES RAMP AND CONCRETE TRAIL SYSTEM THROUGHOUT THE STRUCTURE)

BY	DATE	REVISION DESCRIPTION

DESIGN JMD PROJ. NO. 11071  
DRAWN JMD DATE 03/31/17  
CHECKED CRM SURVEYED SURVEYOR

**D&A P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Plummer Street, Missoula, Montana 59801-9891  
Phone 409/721-4320 Fax 409/648-8371

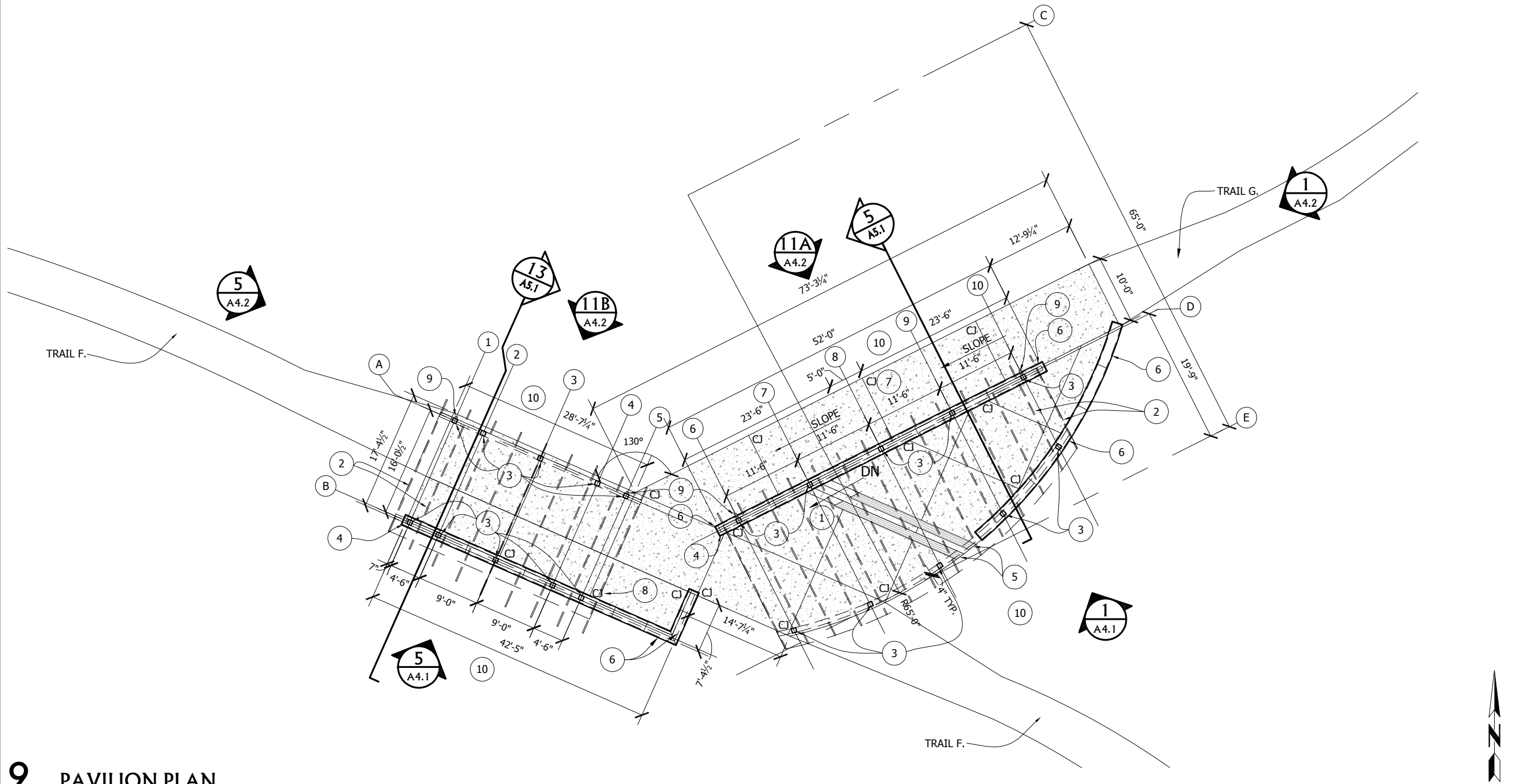


**MT FISH WILDLIFE & PARKS**  
**MILLTOWN STATE PARK**

**GENERAL NOTES**  
**SITE PLAN**  
**A1.0**



SHEET **A01** OF **A09**



## 9 PAVILION PLAN

A2.1 : A2.1

1/16" = 1'-0"

#	KEYNOTES
1	CONCRETE STAIRS. COORDINATE INSTALLATION W/ BRICK WALL. REFER TO DETAILS AND STRUCTURAL FOR ADDITIONAL INFORMATION.
2	DASHED LINES INDICATE ROOF STRUCTURE ABOVE.
3	8" X 8" STRUCTURAL COLUMNS, FINISH PER SPECIFICATION.SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
4	BRICK WALL REFER TO DETAILS FOR ADDITIONAL INFORMATION.
5	WOOD BENCH SEATING AREA, REFER TO DETAILS FOR ADDITIONAL INFORMATION. FINISH PER SPECIFICATION.
6	PRECAST CONCRETE CAPS. SEE A3.1 FOR CAP JOINT LOCATIONS.
7	ADA RAMP. SLOPE 1:20. COORDINATE INSTALLATION W/ BRICK WALL. REFER TO CIVIL AND STRUCTURAL FOR ADDITIONAL INFORMATION.

#	KEYNOTES
8	"CJ" REPRESENTS CONCRETE CONTROL JOINTS, COORDINATE W/ STRUCTURAL, TYP.
9	PROVIDE AND INSTALL SS PIEDMONT DOWNSPOUT BOOT (MODEL B1). COORDINATE INLET SIZE TO MATCH DOWNSPOUT. COLOR TO MATCH DOWNSPOUT AND SELECTED BY ARCH FROM FULL RANGE OF MANUFACTURER COLORS. REFER TO CIVIL FOR UNDERSLAB DRAINAGE.
10	GRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM STRUCTURE, TYP.

### HATCH LEGEND



HATCH INDICATES FINISHED CONCRETE.

BY	DATE	REVISION	DESCRIPTION

DESIGN JMD PROJ. NO. 11071  
DRAWN JMD DATE 03/31/17  
CHECKED CRM SURVEYED SURVEYOR

**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Plummer Street, Missoula, Montana 59801-8891  
Phone 406/721-4320 Fax 406/648-8371



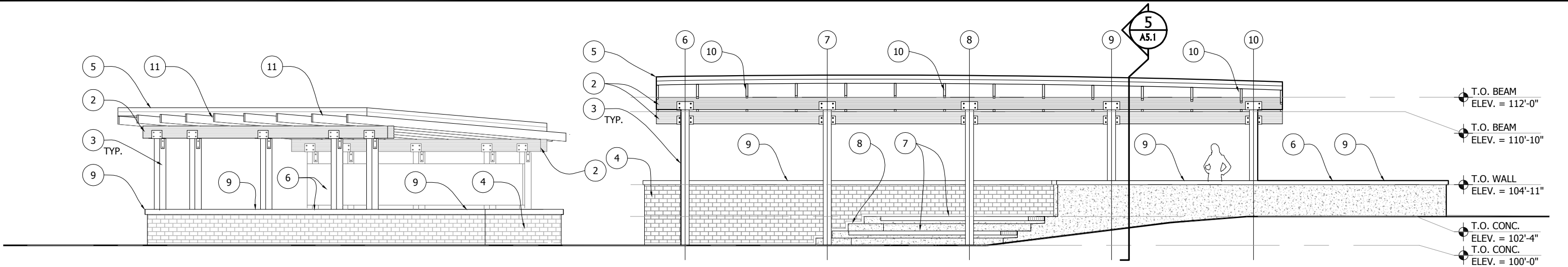
**MT FISH WILDLIFE & PARKS**  
**MILLTOWN STATE PARK**

**PAVILION PLAN**  
**A2.1**

**ase**  
ARCHITECTS  
222 NORTH HIGGINS  
MISSOULA, MT 59802  
PH 406.721.5643  
FAX 406.721.1887  
www.asearchitects.com

SHEET  
OF  
**A02 A09**

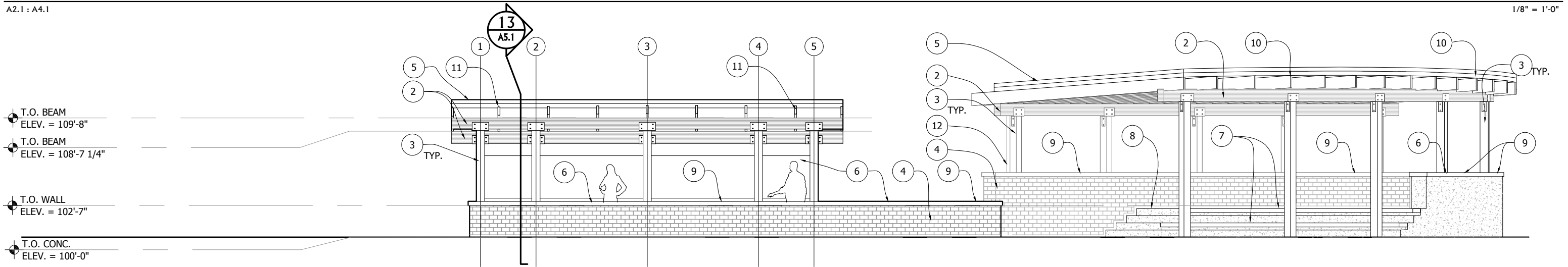




1 SW ELEVATION (INFORMATIVE SPACE)

A2.1 : A4.1

1/8" = 1'-0"



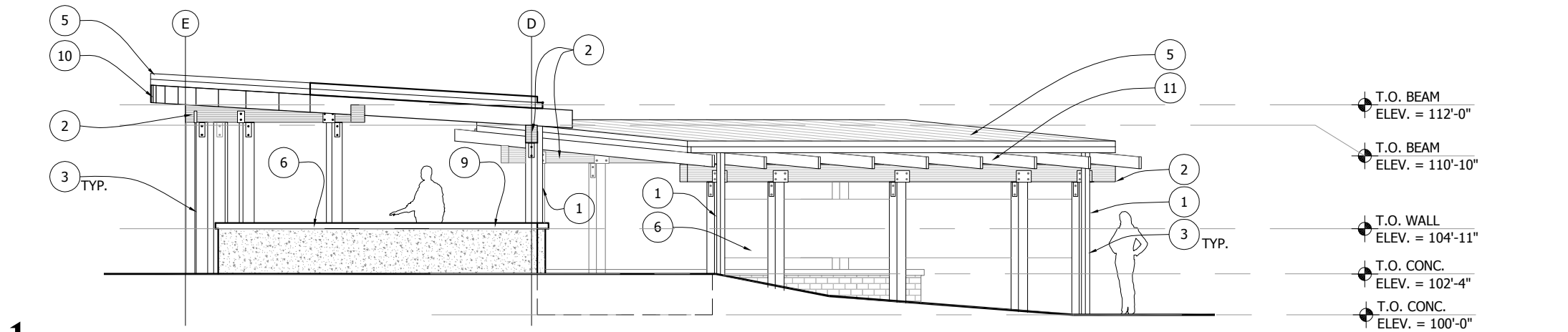
5 SW ELEVATION (INFORMATIVE SPACE)

A2.1 : A4.1

1/8" = 1'-0"

#	KEYNOTES
1	DOWNSPOUT LOCATION. CONNECT INTO PIEDMONT BOOT. COLOR SELECTED BY ARCH FROM FULL RANGE OF MANUFACTURER COLORS.
2	GLULAM BEAMS, SEE STRUCTURAL FOR SIZING. STAIN FINISH.
3	8" X 8" STRUCTURAL COLUMNS, SEE STRUCTURAL FOR ADDITIONAL INFORMATION. STAIN FINISH.
4	TUMBLED BRICK WALL. COLOR SELECTED BY ARCH. PROVIDE WEEP HOLES ALONG BOTTOM COURSE, APPROX. EVERY 24".
5	FABRAL STANDING SEAM MTL. ROOF OR APPROVED EQUAL. COLOR SELECTED BY ARCHITECT FROM FULL RANGE OF MANUFACTURERS COLORS.
6	LOCATION FOR INFORMATION/DISPLAY BOARDS. PROVIDED BY OWNER.
7	WOOD BENCH SEATING AREA, SEE DETAILS.
8	CONCRETE STAIRS, SEE DETAILS.

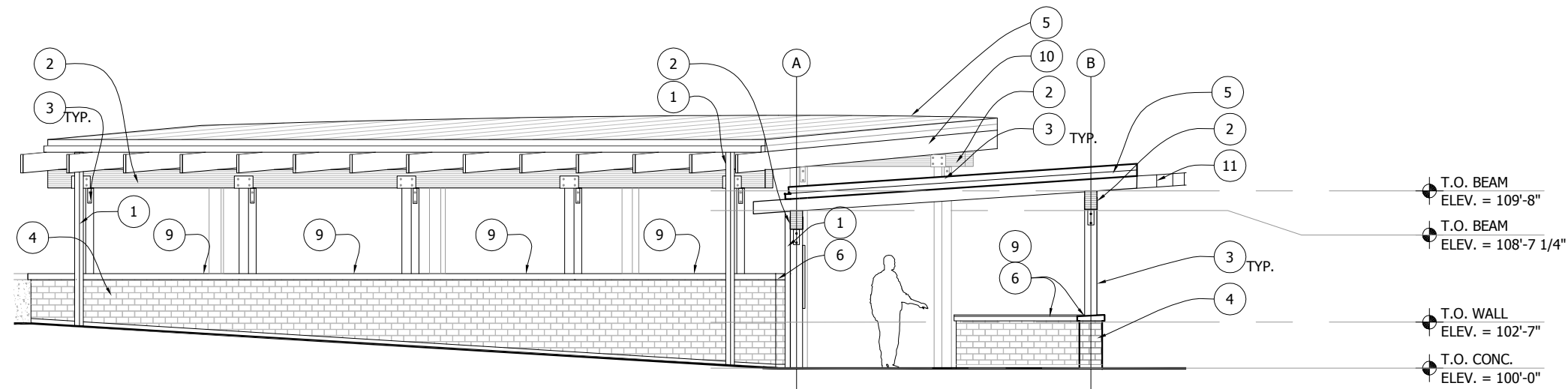
#	KEYNOTES
9	PRECAST CONCRETE CAPS, SEE A3.1, SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION.
10	2-1/2" X 12" GLULAM RAFTERS. NOTCH RAFTERS ALONG CURVED GLULAM TO ENSURE ROOF SLOPE STAYS CONSISTENT ACROSS ENTIRE ROOF. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION.
11	2-1/2" X 9" GLULAM RAFTERS. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION.



**1 NE ELEVATION (GATHERING SPACE)** SEE KEYNOTES ON A4.1

A2.1 : A4.1

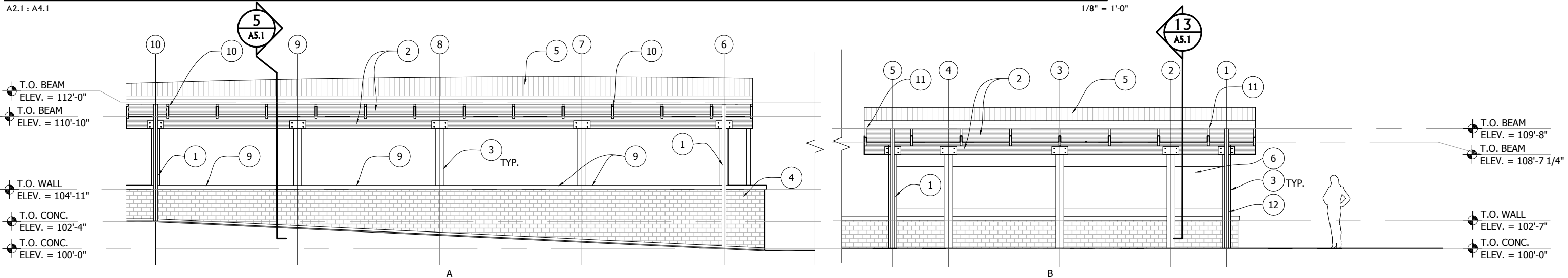
1/8" = 1'-0"



**5 NW ELEVATION (INFORMATIVE SPACE)** SEE KEYNOTES ON A4.1

A2.1 : A4.1

1/8" = 1'-0"



**11 N ELEVATION** SEE KEYNOTES ON A4.1

A2.1 : A4.1

1/8" = 1'-0"

BY	DATE	REVISION	DESCRIPTION

DESIGN JMD PROJ. NO. 11071  
 DRAWN JMD DATE 03/31/17  
 CHECKED CRM SURVEYED SURVEYOR

**D&A P.C.**  
 CONSULTING ENGINEERS & LAND SURVEYORS  
 3203 Russell Street, Missoula, Montana 59801-8891  
 Phone 406/721-4320 Fax 406/648-8371

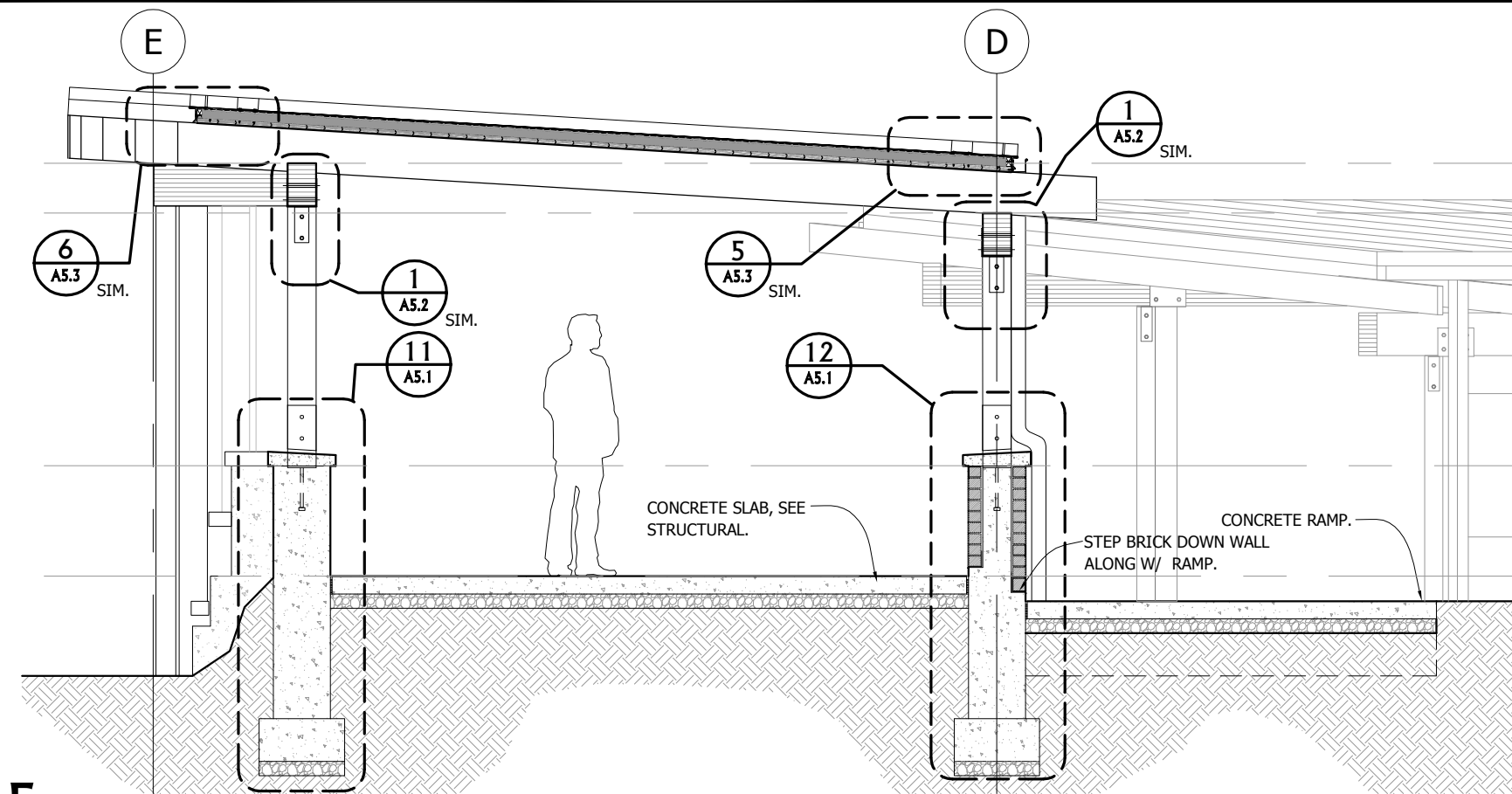


**MT FISH WILDLIFE & PARKS**  
**MILLTOWN STATE PARK**

**CONCEPTUAL ELEVATIONS**  
**A4.2**

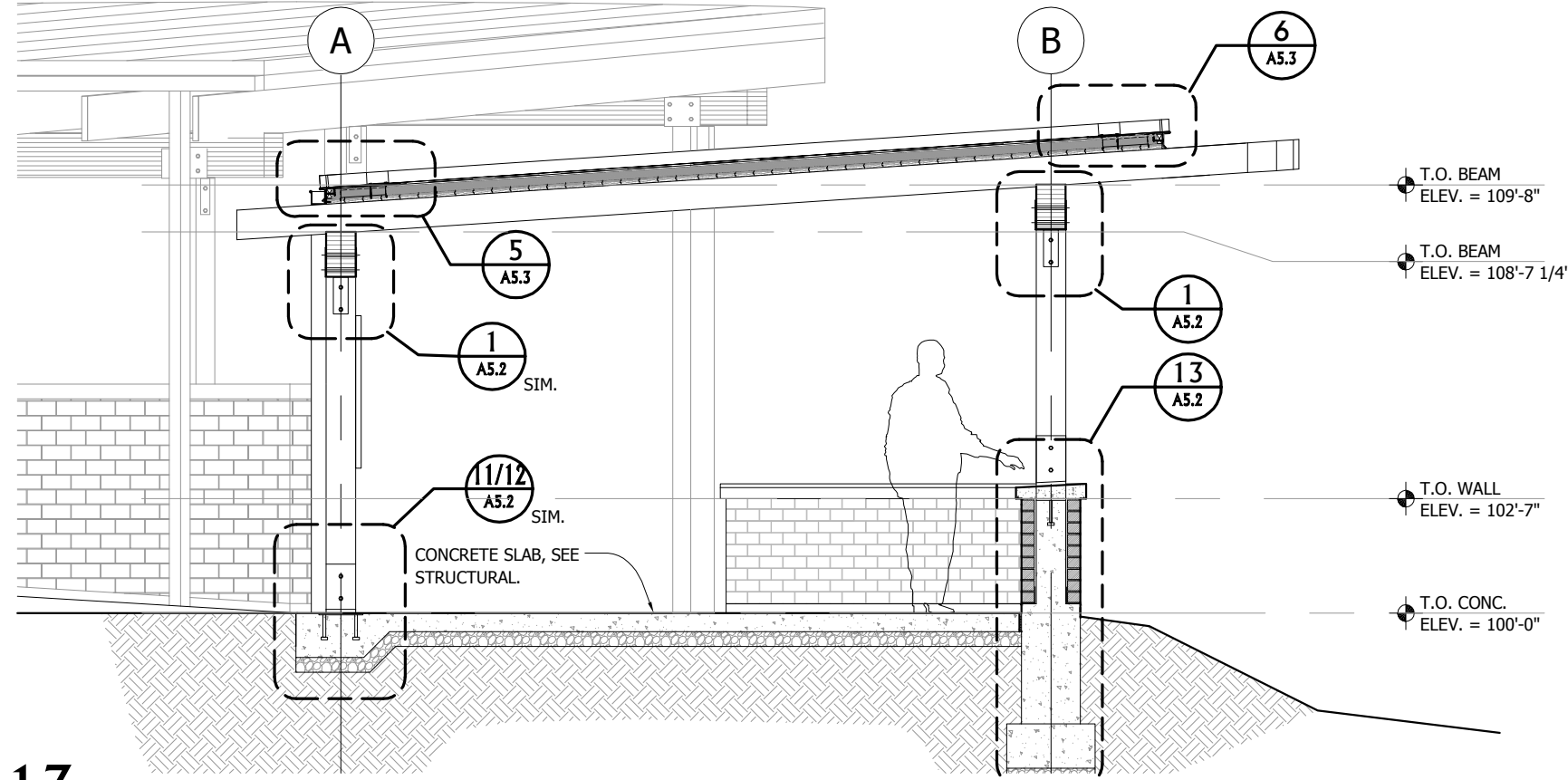
**ase**  
 ARCHITECTS  
 222 NORTH HIGGINS  
 MISSOULA, MT 59802  
 PH 406/721-5643  
 FAX 406/721-1887  
 www.asearchitects.com

SHEET	OF
<b>A05</b>	<b>A09</b>



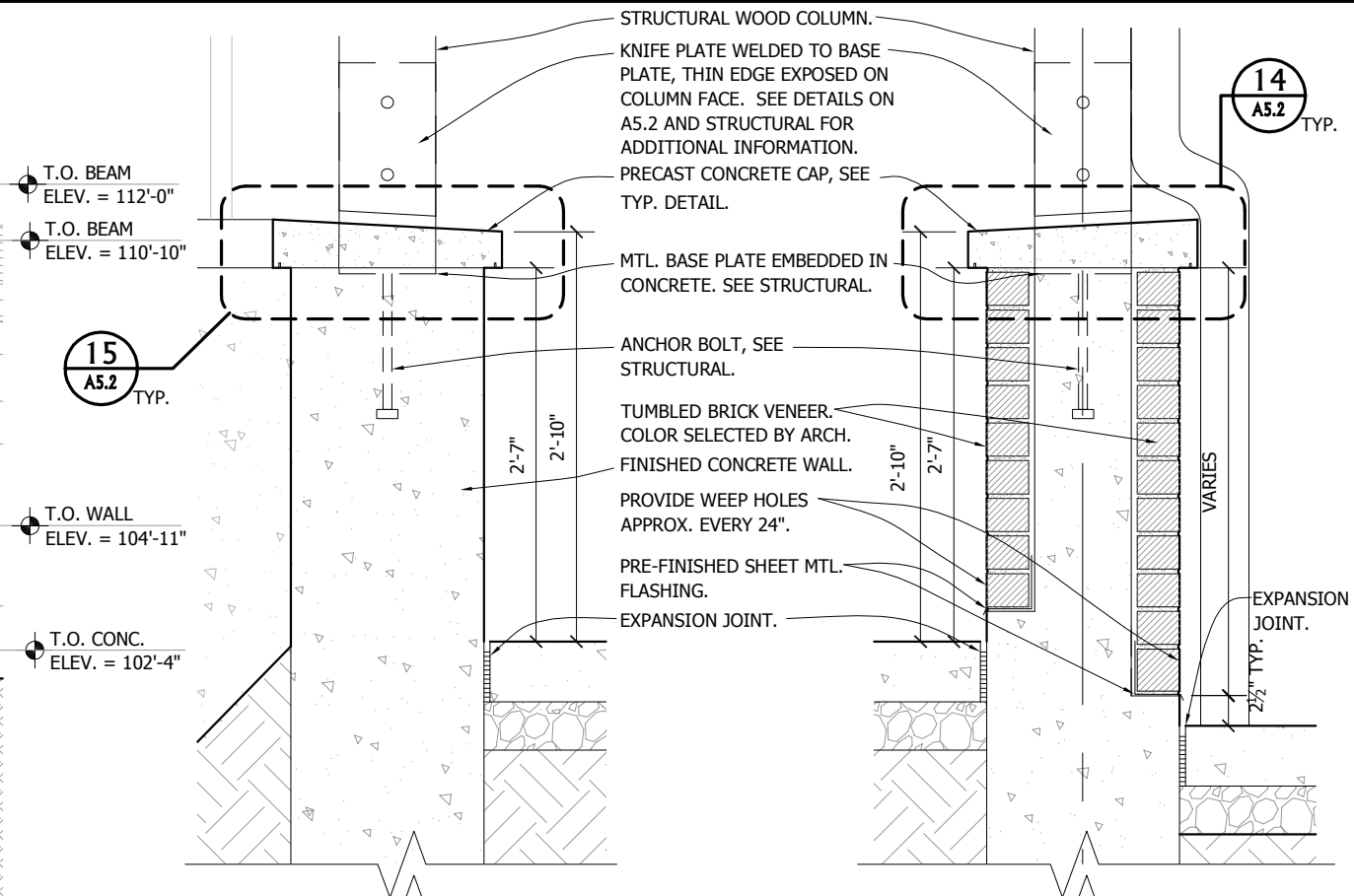
**5 PAVILION SECTION**

A2.1 : A5.1 1/4" = 1'-0"



**13 PAVILION SECTION**

A2.1 : A5.1 1/4" = 1'-0"

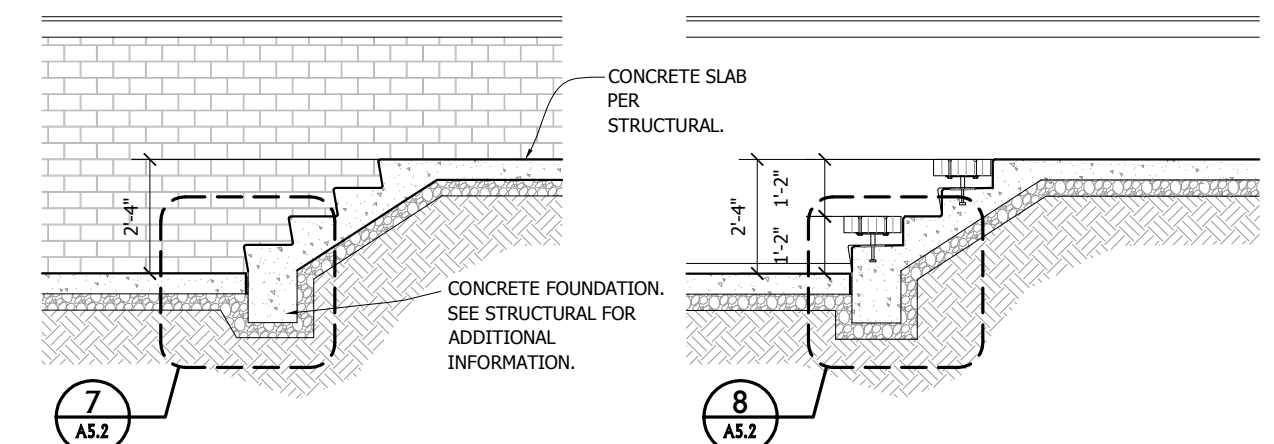


**11 CONCRETE WALL DETAIL**

A5.1 : A5.1 3/4" = 1'-0"

**12 BRICK WALL DETAIL**

A5.1 : A5.1 3/4" = 1'-0"



**15 CONCRETE STAIR SECTION**

A5.1 : A5.1 1/4" = 1'-0"

**16 BENCH/STAIR SECTION**

A5.1 : A5.1 1/4" = 1'-0"

BY	DATE	REVISION	DESCRIPTION

DESIGN	JMD	PROJ. NO.	11071
DRAWN	JMD	DATE	03/31/17
CHECKED	CRM	SURVEYED	SURVEYOR

**D&A P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Russell Street, Missoula, Montana 59801-4891  
Phone 406/721-4320 Fax 406/648-8371

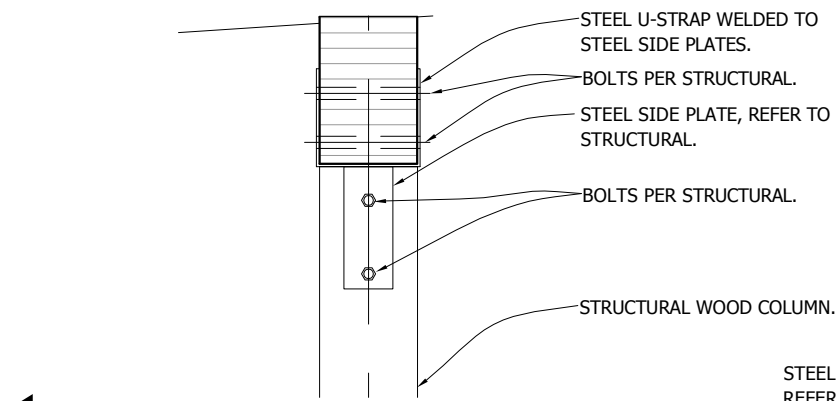


**MT FISH WILDLIFE & PARKS**  
**MILLTOWN STATE PARK**

**PAVILION SECTIONS**  
**A5.1**

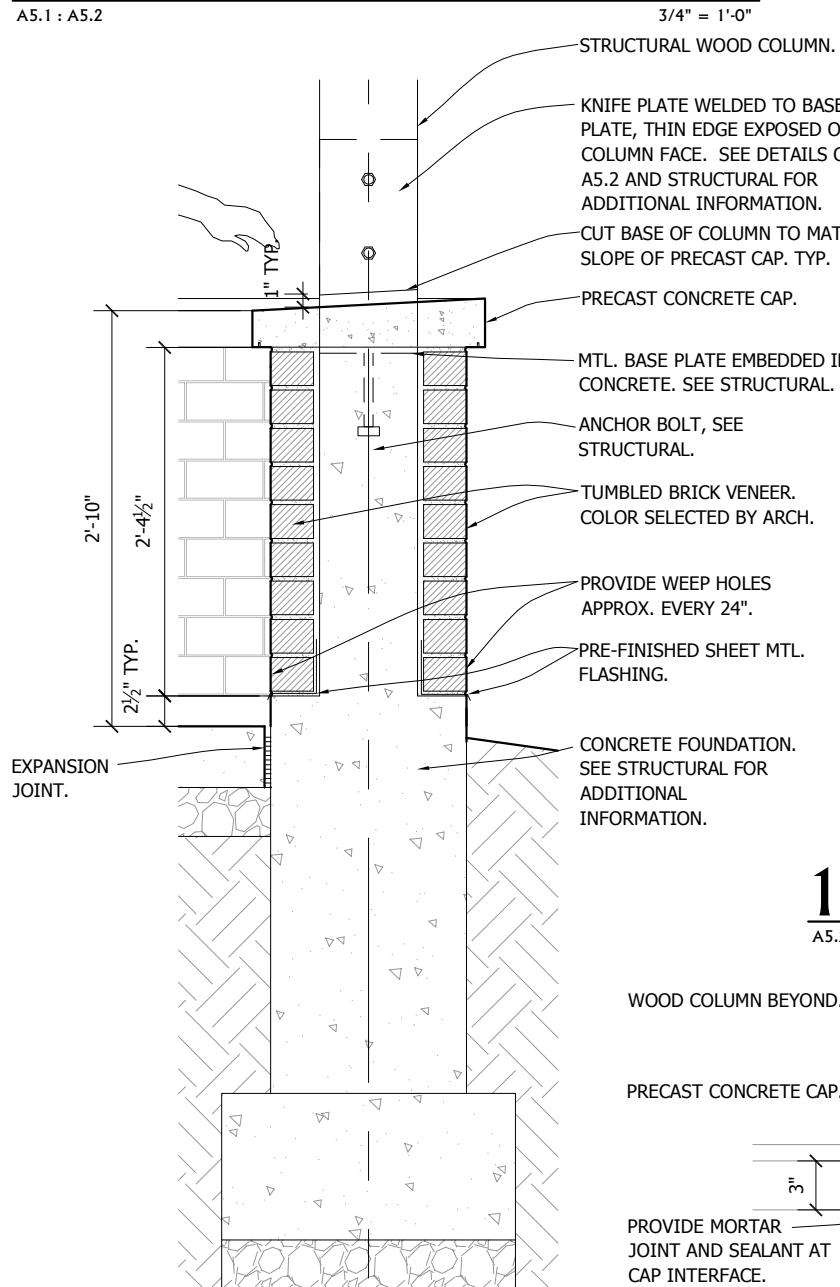


SHEET	OF
<b>A06</b>	<b>A09</b>



# 1 COLUMN CONNECTION DETAIL

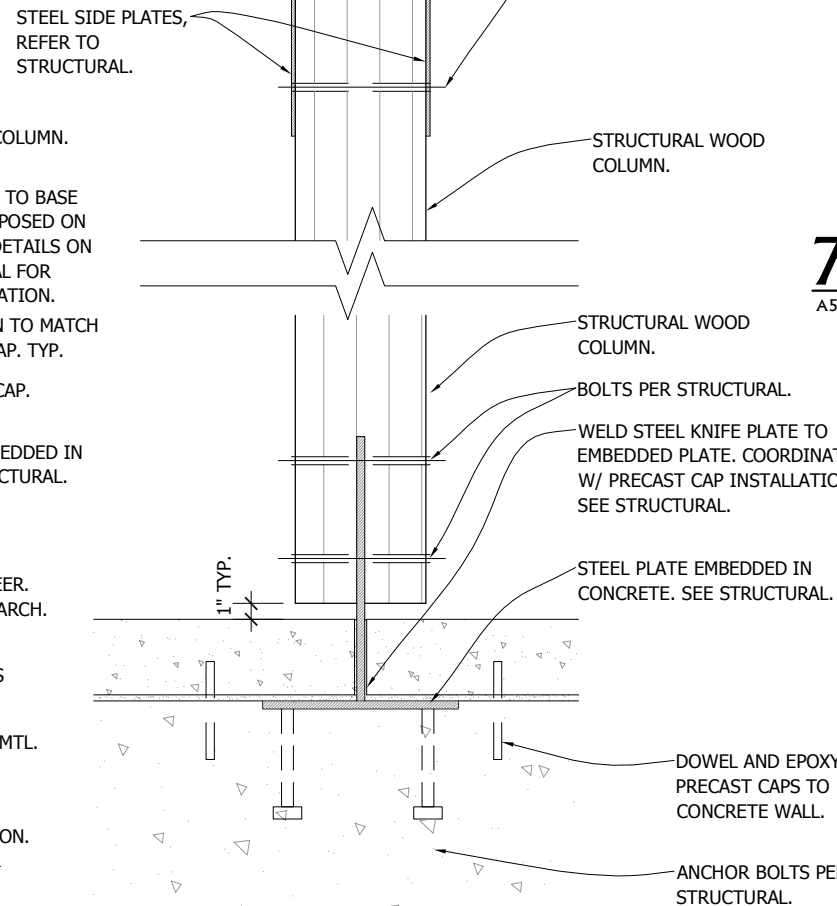
A5.1 : A5.2



# 13 WALL DETAIL

A5.1 : A5.2

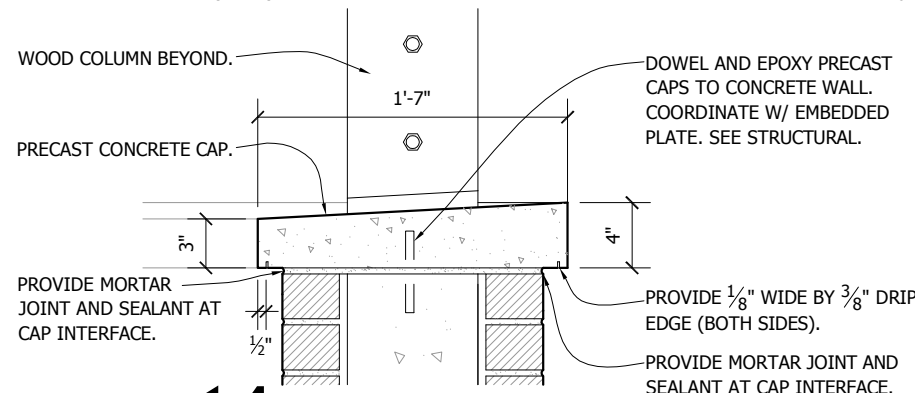
3/4" = 1'-0"



# 10 COLUMN CONNECTION DETAIL TO PRECAST CAP

A5.2 : A5.2

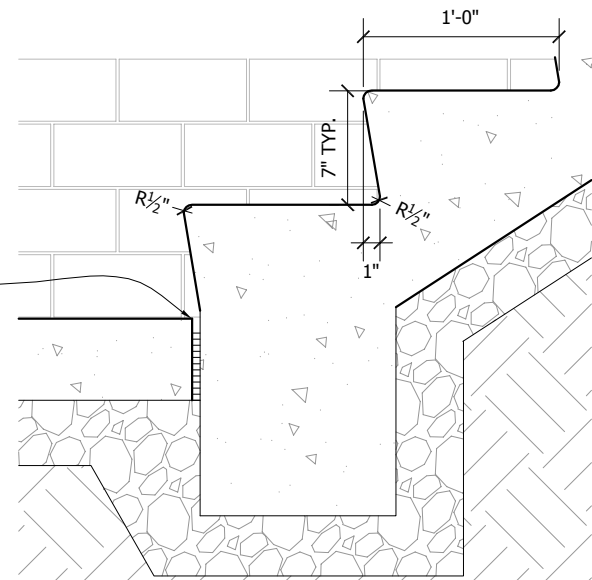
1" = 1'-0"



# 14 TYP. PRECAST CAP DETAIL

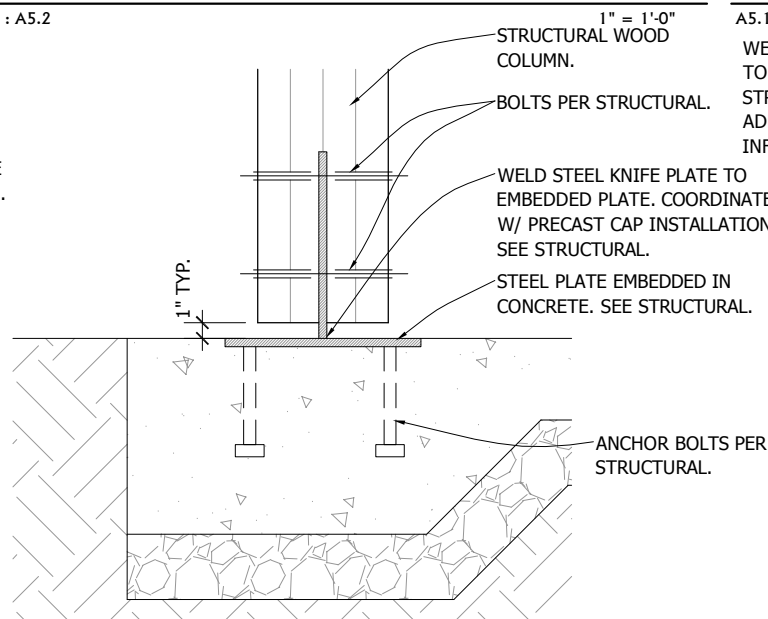
A5.1 : A5.2

1" = 1'-0"



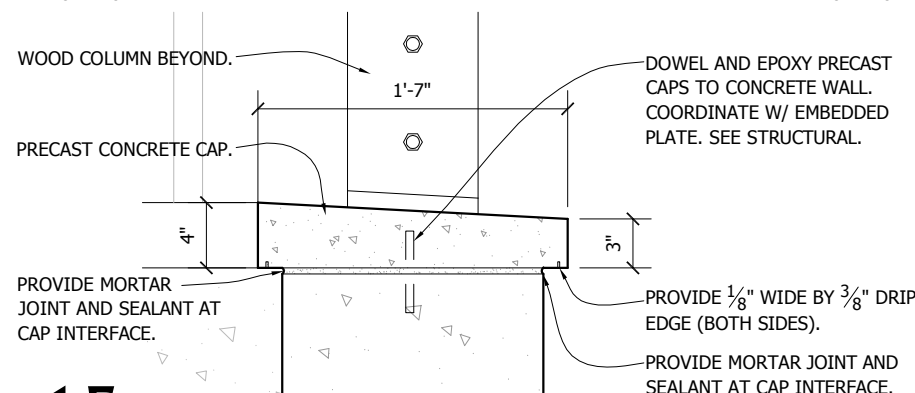
# 7 CONCRETE STAIR DETAIL

A5.1 : A5.2



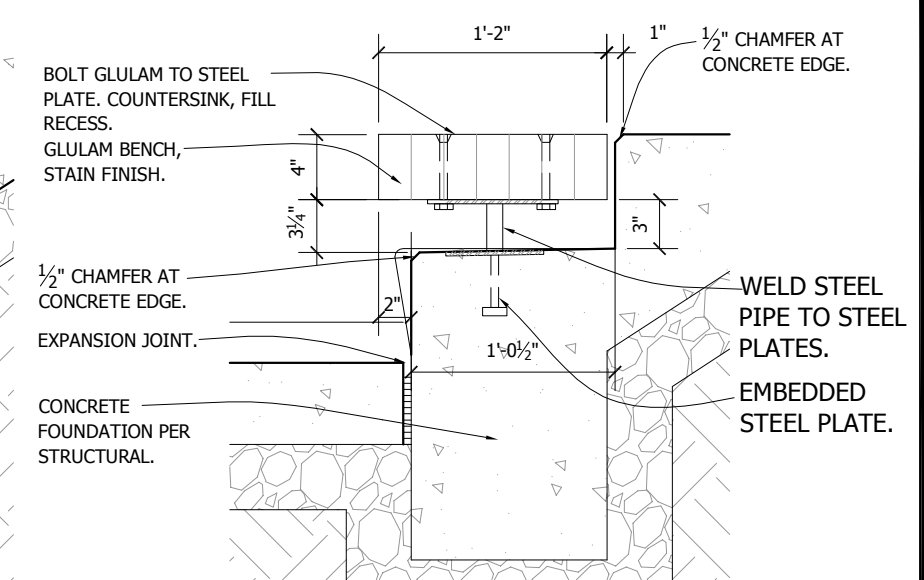
# 11 COLUMN CONNECTION DETAIL TO CONCRETE SLAB

A5.1 : A5.2



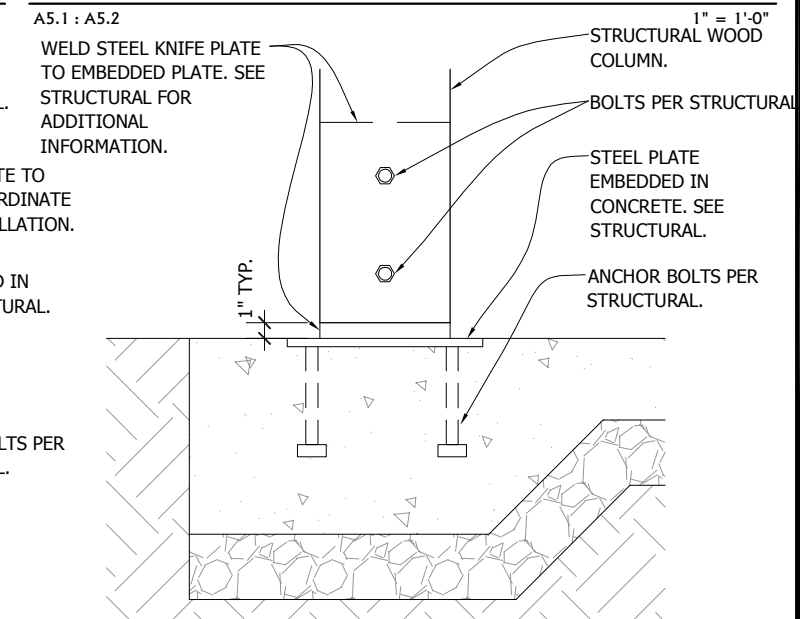
# 15 TYP. PRECAST CAP DETAIL

A5.1 : A5.2



# 8 BENCH DETAIL

A5.1 : A5.2



# 12 COLUMN CONNECTION DETAIL TO CONCRETE SLAB - ELEVATION

A5.1 : A5.2

NOTE :  
ALL STEEL COLUMN CONNECTIONS TO BE POWDER COATED SW6992 INKWEIL, OR APPROVED EQUAL, TYP.

BY	DATE	REVISION	DESCRIPTION

DESIGN JMD PROJ. NO. 11071  
DRAWN JMD DATE 03/31/17  
CHECKED CRM SURVEYED SURVEYOR

**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Russell Street, Missoula, Montana 59801-6591  
Phone 406/721-4320 Fax 406/549-6371

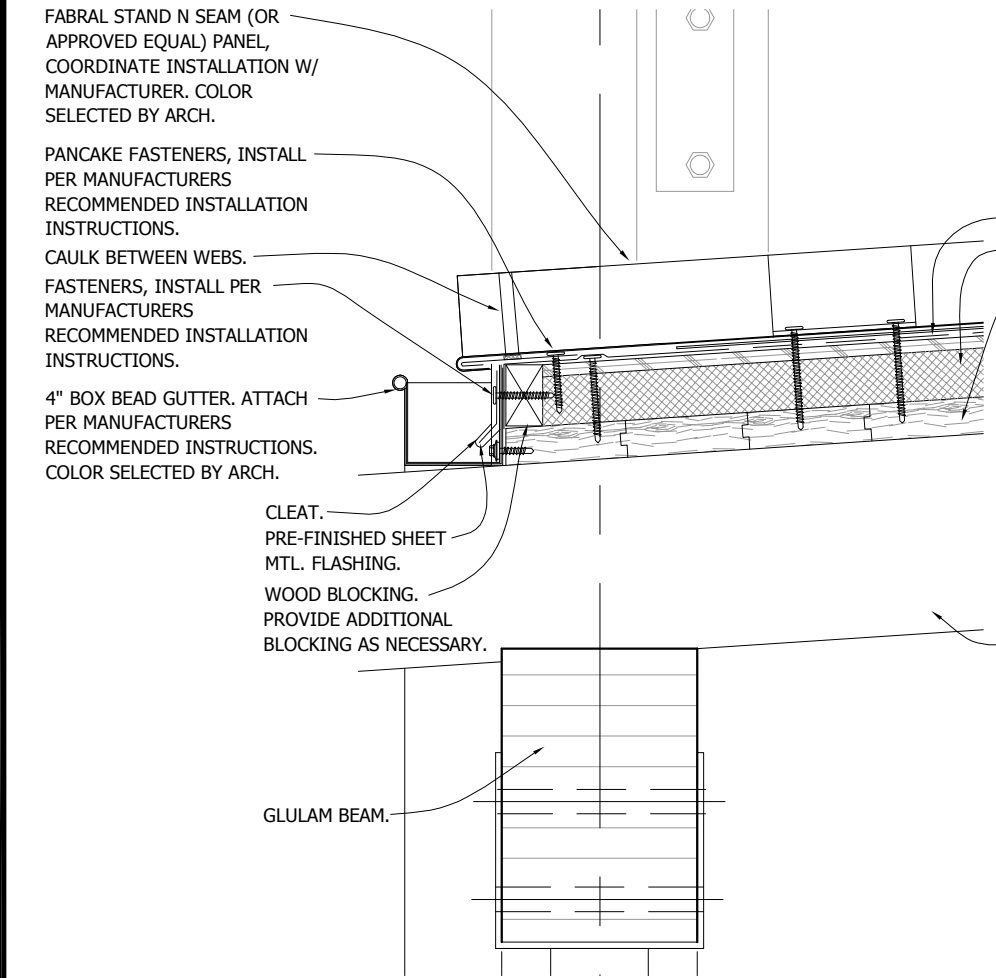


**MT FISH WILDLIFE & PARKS**  
**MILLTOWN STATE PARK**

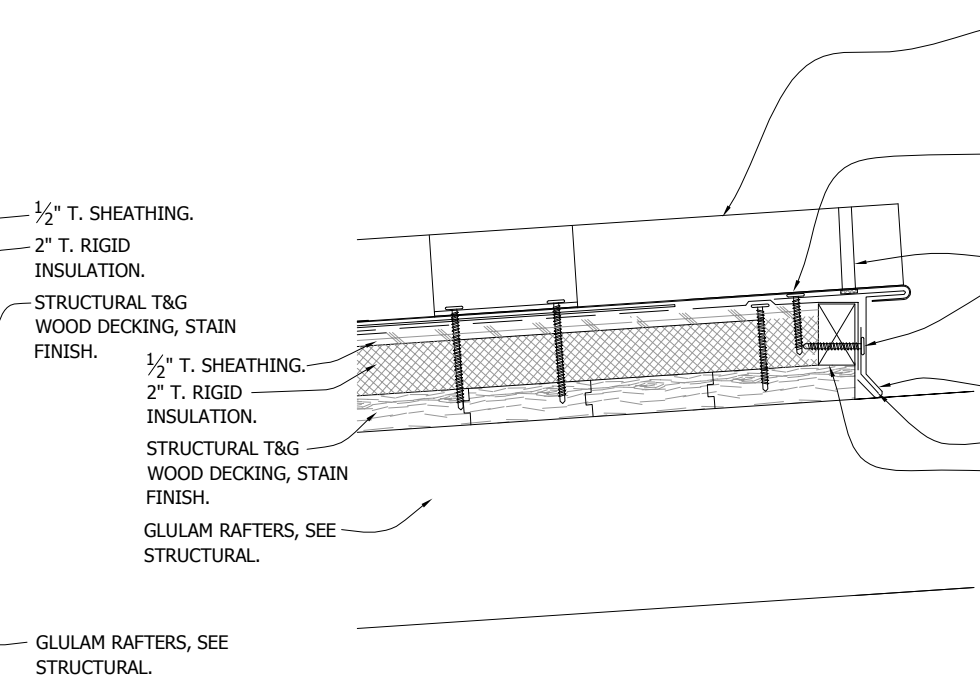
**SECTIONS & DETAILS**  
**A5.2**

**ase**  
ARCHITECTS  
222 NORTH HIGGINS  
MISSOULA, MT. 59802  
PH 406.721.5643  
FAX 406.721.1887  
www.asearchitects.com

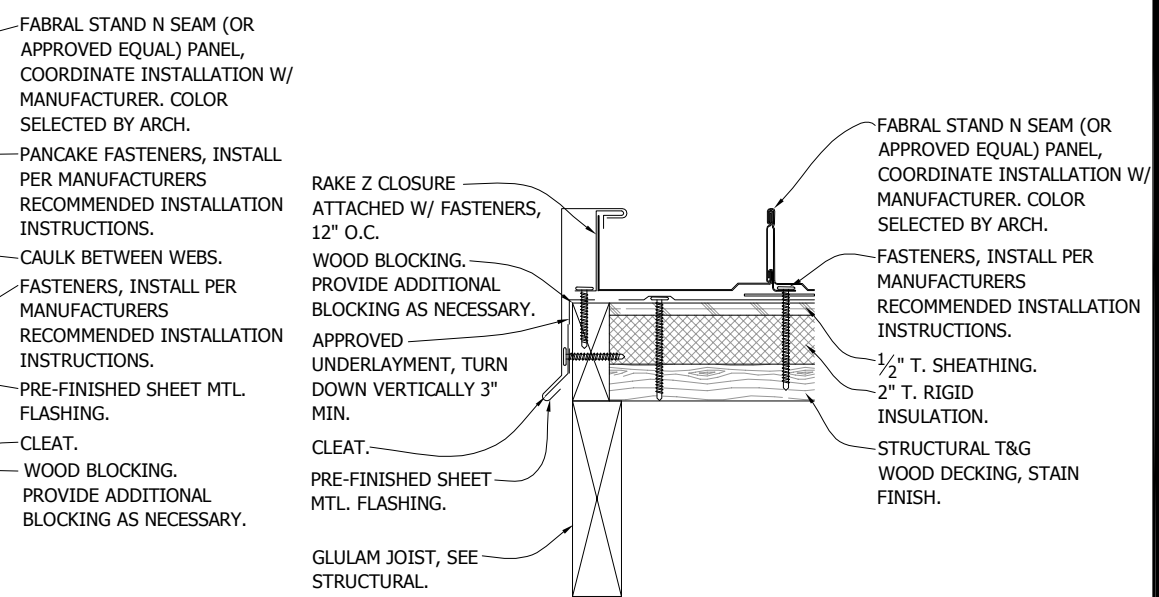
SHEET  
OF  
**A07 A09**



**5 ROOF / GUTTER DETAIL**  
A5.1 : A5.3 1-1/2" = 1'-0"



**6 ROOF EDGE DETAIL**  
A5.1 : A5.3 1-1/2" = 1'-0"



**8 ROOF EDGE DETAIL**  
A5.1 : A5.3 1-1/2" = 1'-0"

BY	DATE	REVISION DESCRIPTION

DESIGN	JMD	PROJ. NO.	11071
DRAWN	JMD	DATE	03/31/17
CHECKED	CRM	SURVEYED	SURVEYOR

**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Plumel Street, Missoula, Montana 59801-8891  
Phone 406/721-4320 Fax 406/648-8371



MT FISH WILDLIFE & PARKS  
MILLTOWN STATE PARK

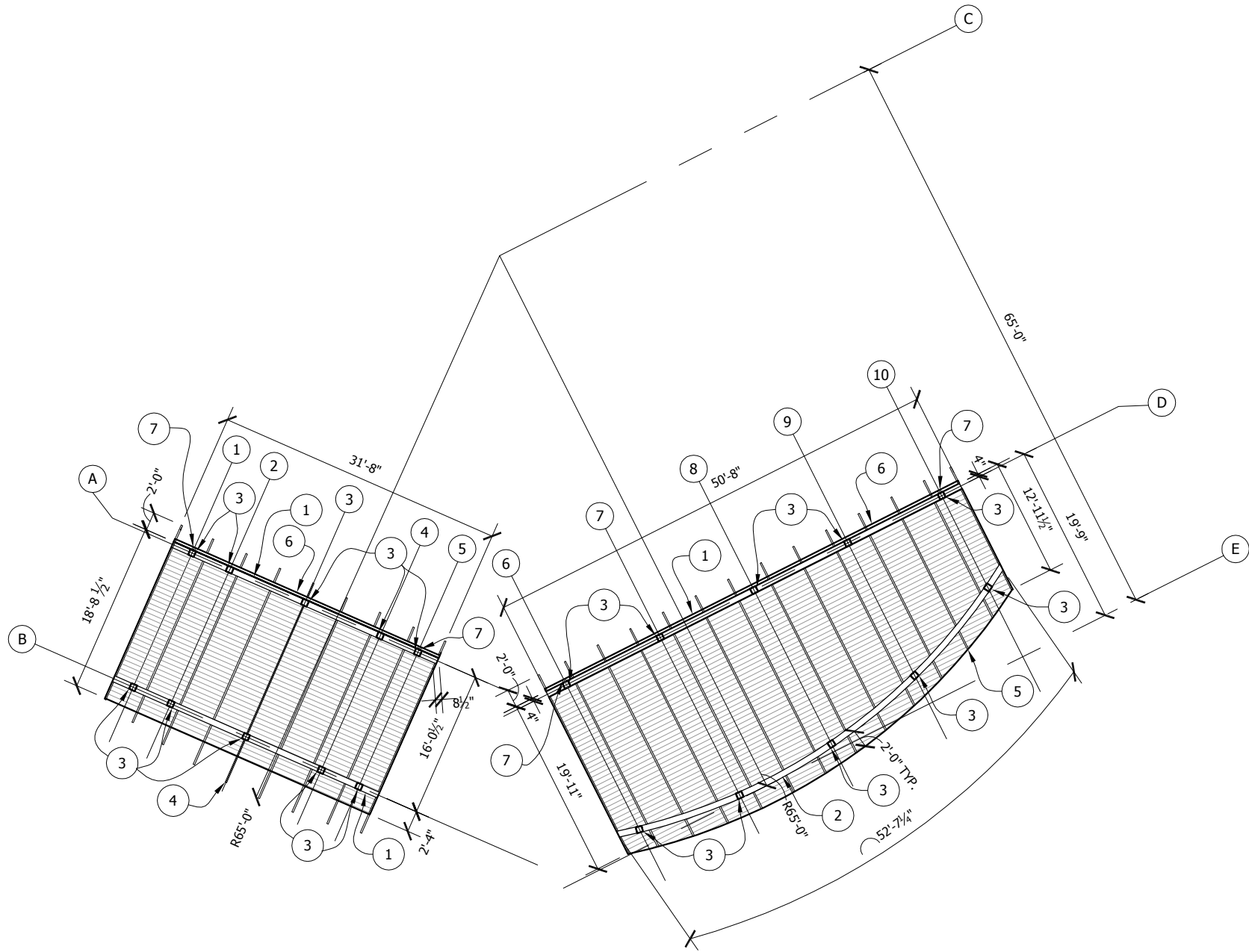
**MT FISH WILDLIFE & PARKS**  
**MILLTOWN STATE PARK**

**SECTIONS & DETAILS**  
**A5.3**



ase  
ARCHITECTS  
222 NORTH HIGGINS  
MISSOULA, MT 59802  
PH 406.721.5643  
FAX 406.721.1887  
www.asearchitects.com

SHEET	
OF	
<b>A08</b>	<b>A09</b>



9 PAVILION PLAN

A7.1 : A7.1

1/16" = 1'-0"

#	KEYNOTES
1	8 X 12 GLULAM. FINISH PER SPECIFICATION.
2	8 X 12 CURVED GLULAM. FINISH PER SPECIFICATION.
3	8" X 8" STRUCTURAL COLUMNS, SEE STRUCTURAL. FINISH PER SPECIFICATION.
4	2-1/2" X 9" GLULAM RAFTERS. EXPOSED RAFTER TAILS TO CURVE ALONG 65' RADIUS. REFER TO STRUCTURAL. FINISH PER SPECIFICATION.
5	2-1/2" X 12" GLULAM RAFTERS. NOTCH END OF EACH RAFTER AT CURVED GLULAM CONNECTION TO ACHIEVE EQUAL SLOPE ACROSS ROOF STRUCTURE. REFER TO STRUCTURAL. FINISH PER SPECIFICATION.

#	KEYNOTES
6	4" ALUMINUM BOX BEAD GUTTER. ATTACH TO GLULAM BEAM ABOVE RAFTERS. COLOR TO MATCH DOWNSPOUTS, PEIDMONT BOOT, AND STANDING SEAM MTL. ROOF. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE OF COLORS.
7	ALUMINUM SQUARE DOWNSPOUT. ATTACH TO PIEDMONT BOOT AT CONCRETE SLAB. COLOR TO MATCH GUTTERS, PIEDMONT BOOT, AND STANDING SEAM MTL. ROOF. COLOR SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE OF COLORS.

	HATCH LEGEND
	HATCH INDICATES 2" THICK BY 5" WIDE T&G. FINISH PER SPECIFICATION.

BY	DATE	REVISION	DESCRIPTION

DESIGN JMD PROJ. NO. 11071  
DRAWN JMD DATE 03/31/17  
CHECKED CRM SURVEYED SURVEYOR

**D&A, P.C.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
3203 Plummer Street, Missoula, Montana 59801-5891  
Phone 406/721-4320 Fax 406/648-8371



**MT FISH WILDLIFE & PARKS**  
**MILLTOWN STATE PARK**

**PAVILION REFLECTED  
CEILING PLAN**  
**A7.1**

**ase**  
ARCHITECTS  
222 NORTH HIGGINS  
MISSOULA, MT 59802  
PH 406.721.5643  
FAX 406.721.1887  
www.asearchitects.com

SHEET		OF
<b>A09</b>	<b>A09</b>	